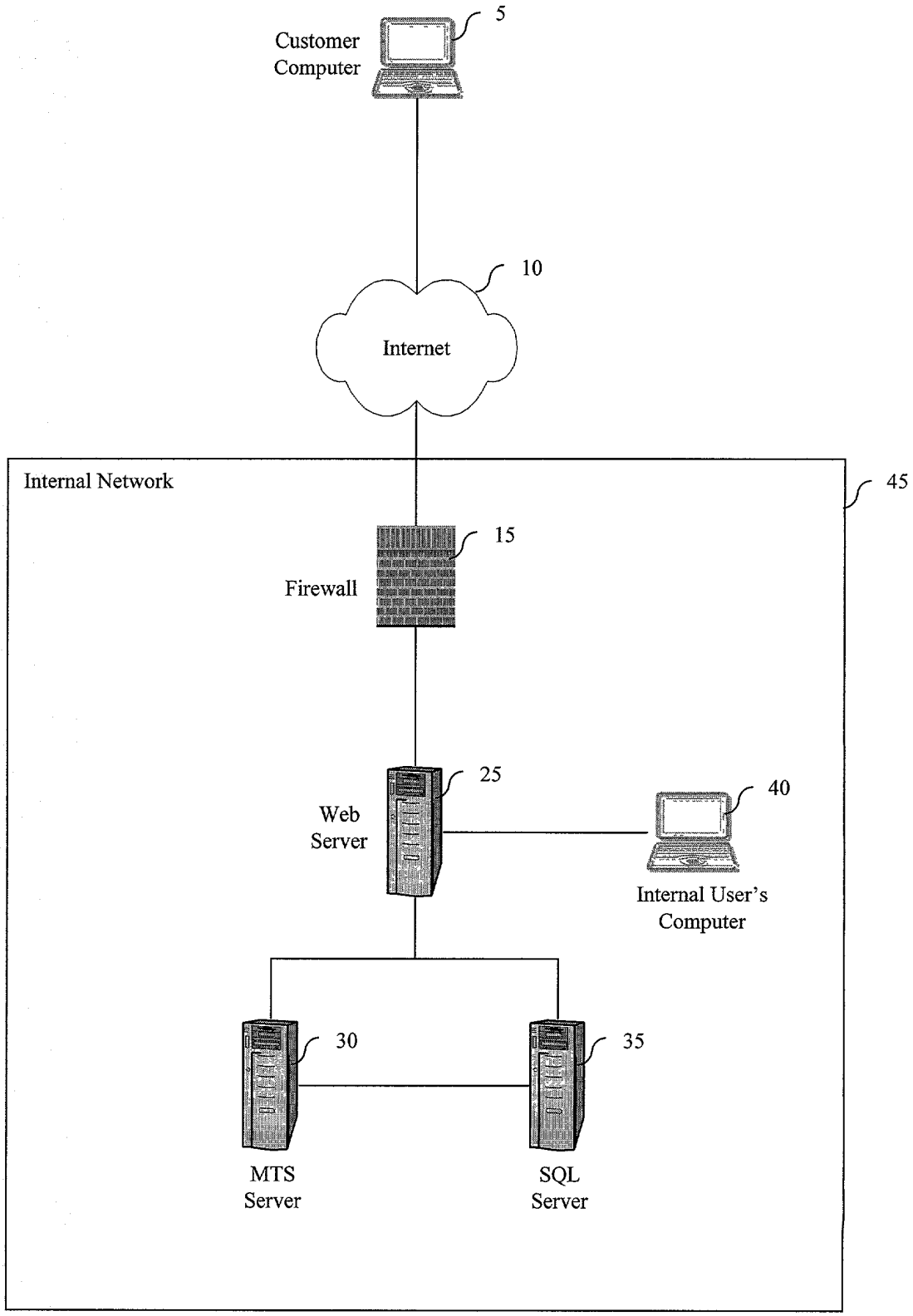


FIG. 1
(Prior Art)

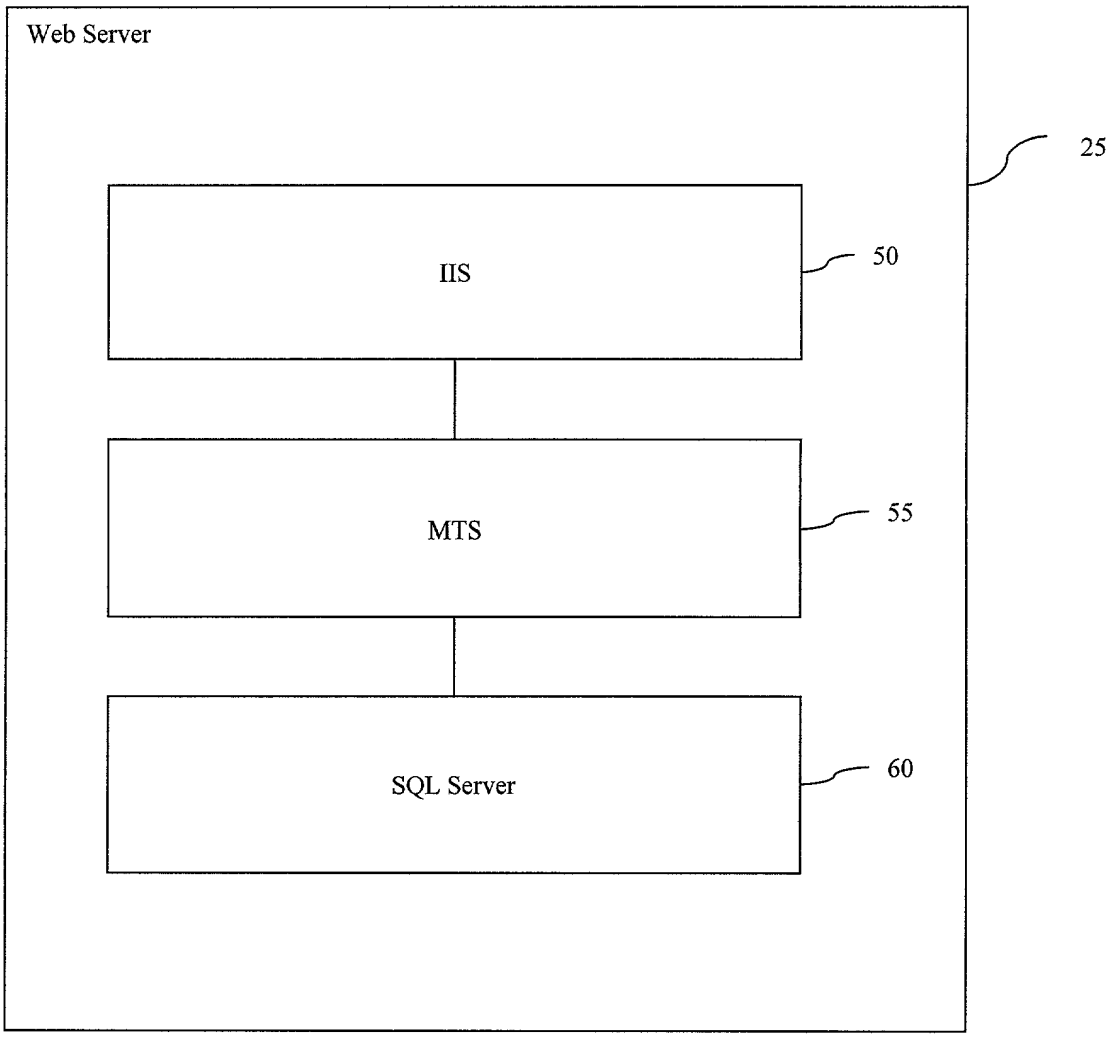


FIG.2
(Prior Art)

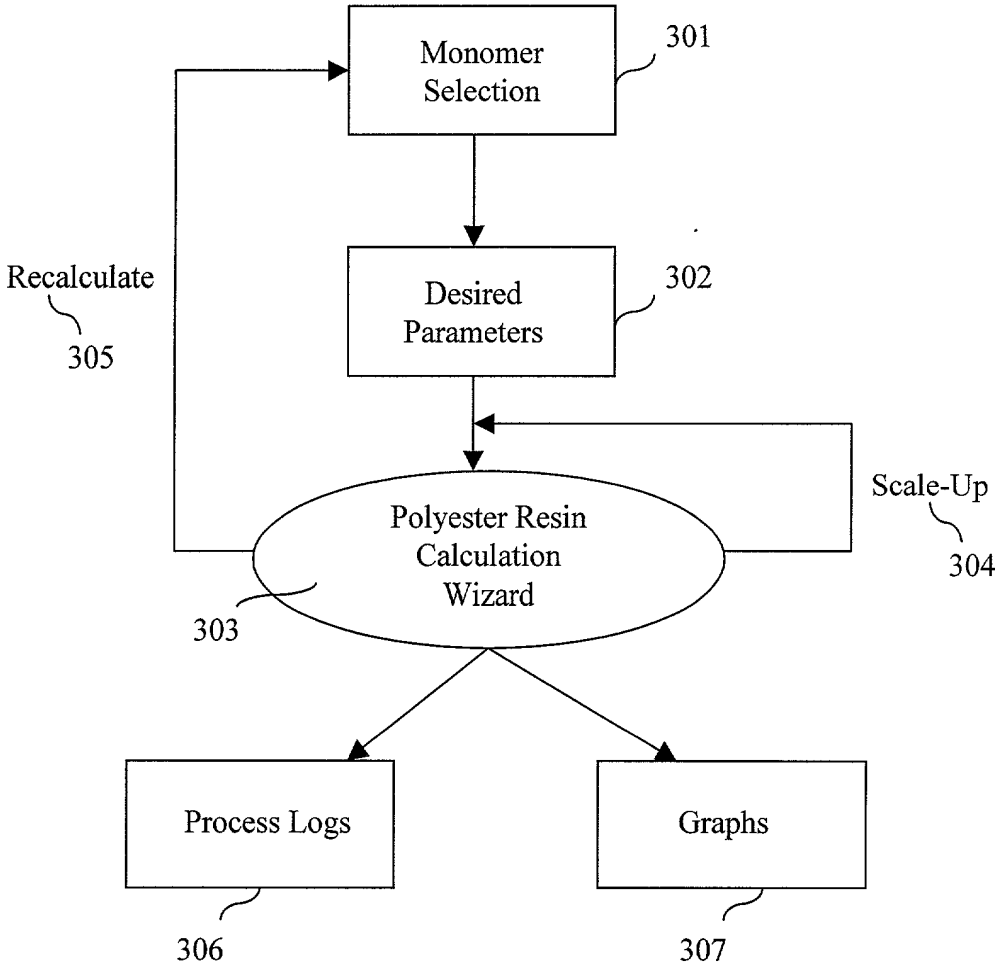

Monomer Selection
301
Desired Parameters
302
Recalculate
305
Polyester Resin Calculation Wizard
303
Scale-Up
304
Process Logs
306
Graphs
307

FIGURE 3A

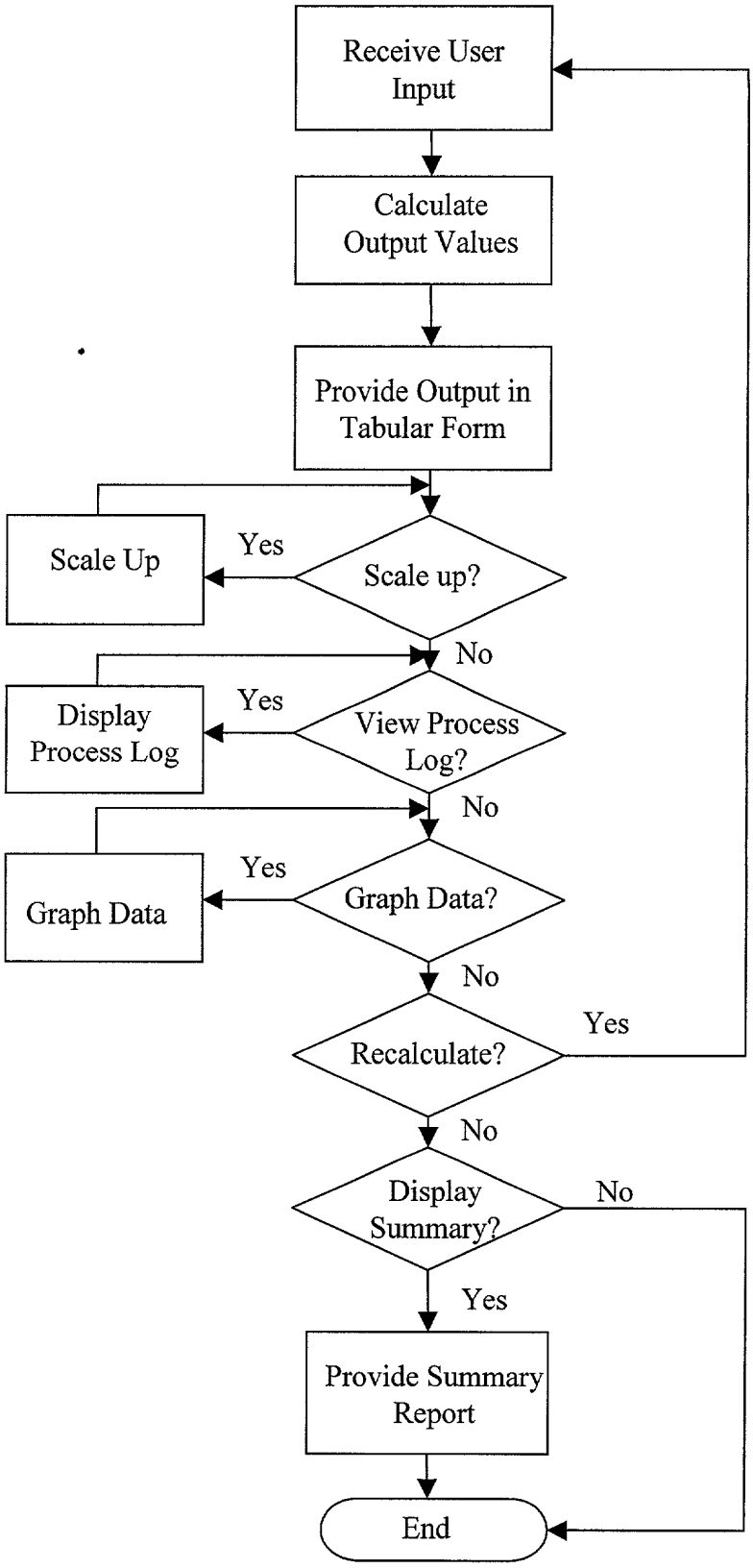
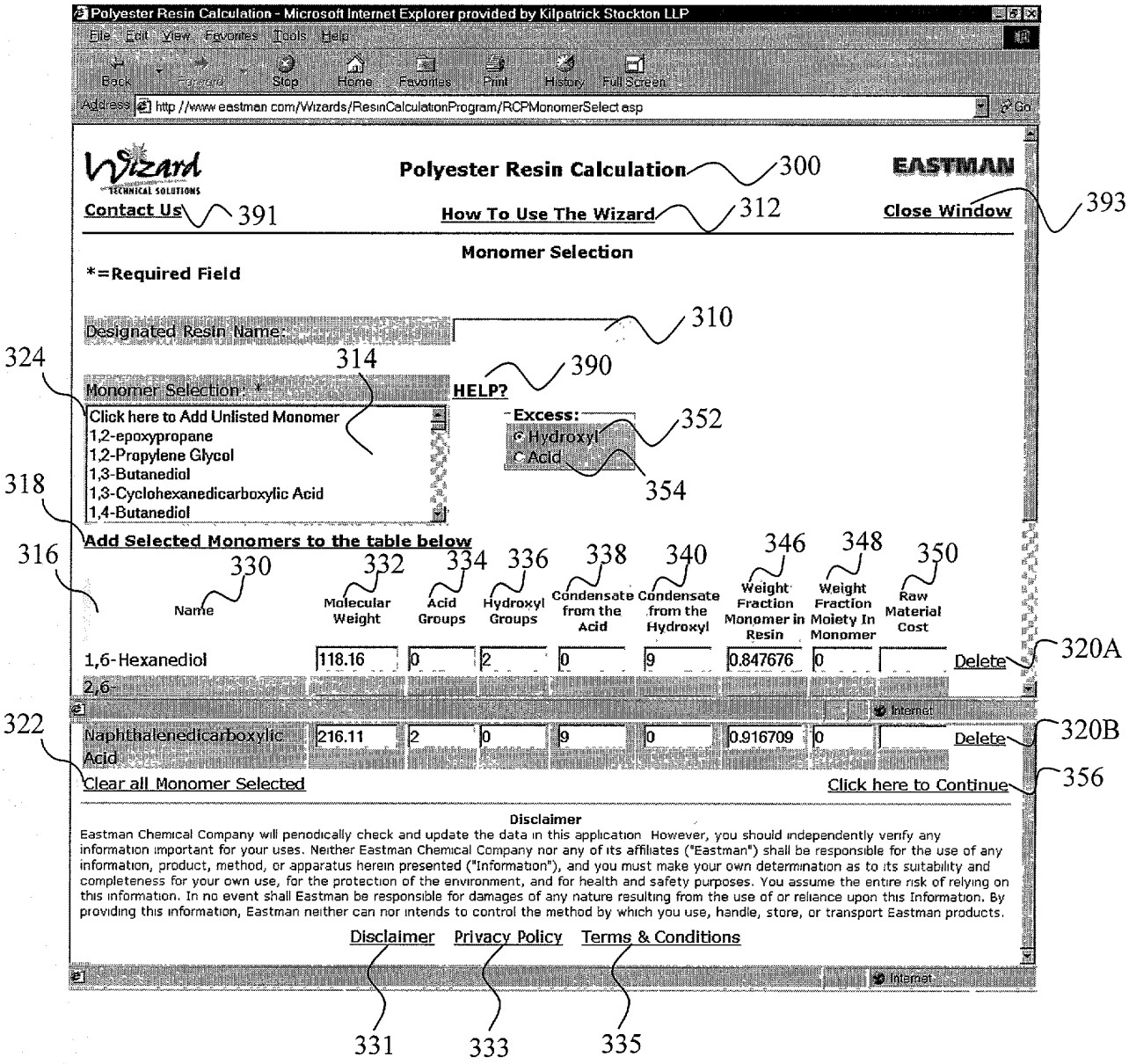

Receive User Input
Calculate Output Values
Provide Output in Tabular Form
Scale up?
Yes
Scale Up
No
View Process Log?
Yes
Display Process Log
No
Graph Data?
Yes
Graph Data
No
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 3B


Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPMonomerSelect.asp
Polyester Resin Calculation
300
EASTMAN
Contact Us
391
How To Use The Wizard
312
Close Window
393
Monomer Selection
*=Required Field
Designated Resin Name:
310
324
314
Monomer Selection: *
HELP?
390
Click here to Add Unlisted Monomer
1,2-epoxypropane
1,2-Propylene Glycol
1,3-Butanediol
1,3-Cyclohexanedicarboxylic Acid
1,4-Butanediol
Excess:
Hydroxyl
Acid
352
354
318
Add Selected Monomers to the table below
316
330
332
334
336
338
340
346
348
350
Name
Molecular Weight
Acid Groups
Hydroxyl Groups
Condensate from the Acid
Condensate from the Hydroxyl
Weight Fraction Monomer in Resin
Weight Fraction Moiety In Monomer
Raw Material Cost
1,6-Hexanediol
118.16
0
2
0
9
0.847676
0
Delete
320A
2,6-Naphthalenedicarboxylic Acid
322
216.11
2
0
9
0
0.916709
0
Delete
320B
Clear all Monomer Selected
Click here to Continue
356
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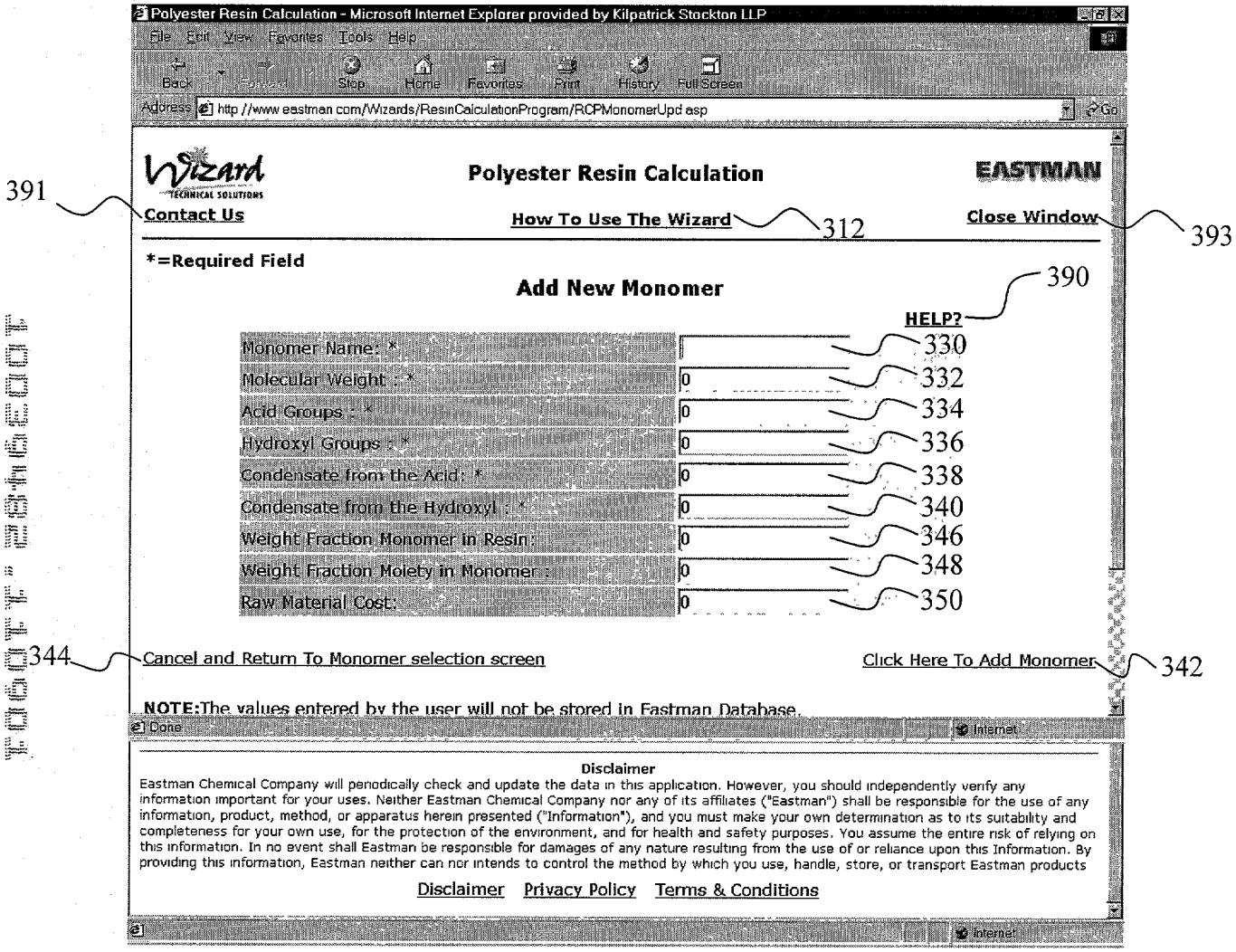
331
333
335

FIGURE 3C


Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPMonomerUpd.asp
Wizard TECHNICAL SOLUTIONS
Polyester Resin Calculation
EASTMAN
391
Contact Us
How To Use The Wizard
312
Close Window
393
*=Required Field
Add New Monomer
390
HELP?
Monomer Name: *
330
Molecular Weight : *
0
332
Acid Groups : *
0
334
Hydroxyl Groups : *
0
336
Condensate from the Acid: *
0
338
Condensate from the Hydroxyl : *
0
340
Weight Fraction Monomer in Resin:
0
346
Weight Fraction Moiety in Monomer :
0
348
Raw Material Cost:
0
350
344
Cancel and Return To Monomer selection screen
Click Here To Add Monomer
342
NOTE:The values entered by the user will not be stored in Eastman Database.
Done
Internet
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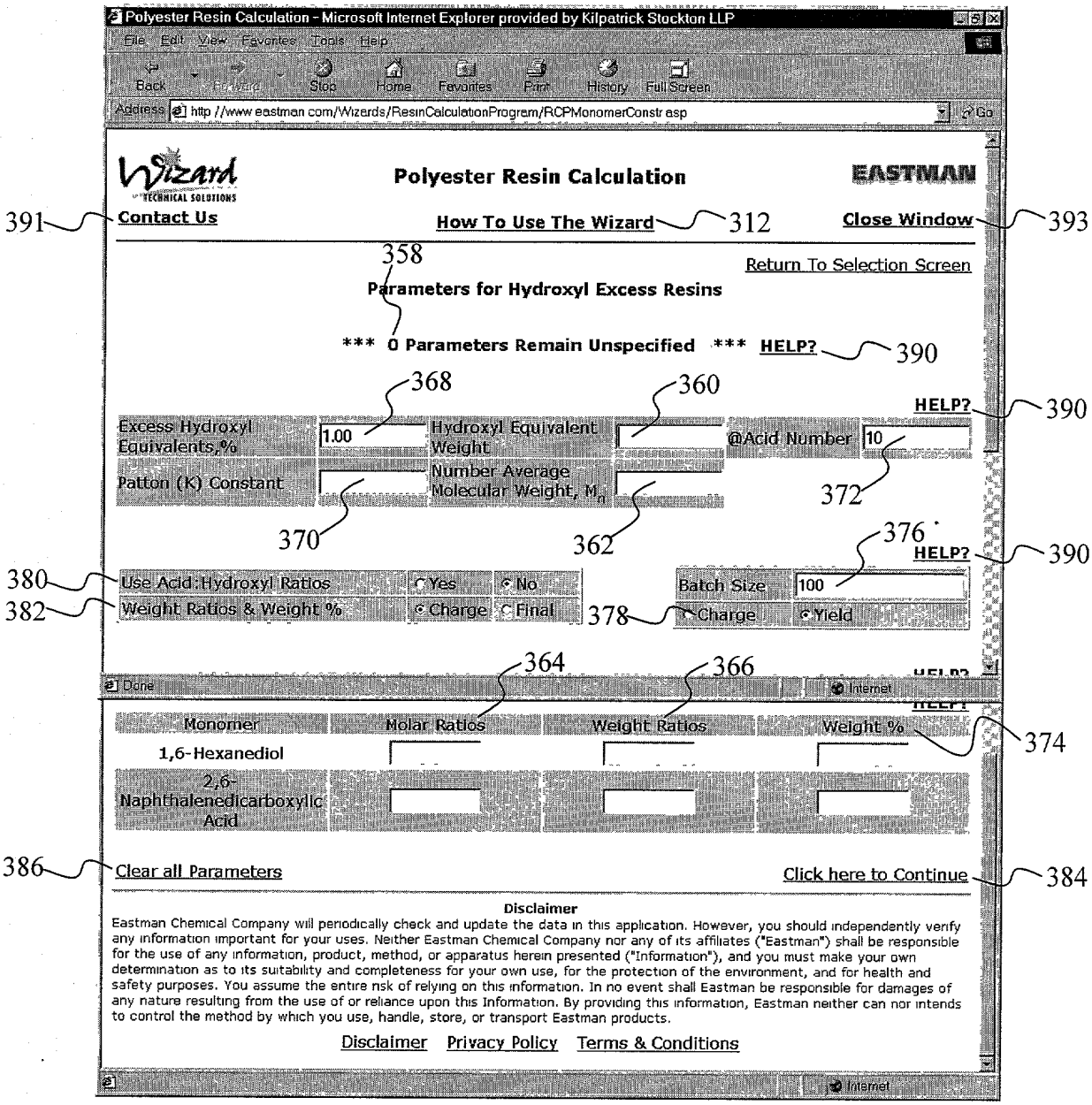
Internet

FIGURE 3D


Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Polyester Resin Calculation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
Return To Selection Screen
Parameters for Hydroxyl Excess Resins
*** 0 Parameters Remain Unspecified ***
HELP?
Excess Hydroxyl Equivalents,%
1.00
Hydroxyl Equivalent Weight
@Acid Number
10
Patton (K) Constant
Number Average Molecular Weight, Mn
Use Acid:Hydroxyl Ratios
Yes
No
Weight Ratios & Weight %
Charge
Final
Batch Size
100
Charge
Yield
Monomer
Molar Ratios
Weight Ratios
Weight %
1,6-Hexanediol
2,6-Naphthalenedicarboxylic Acid
Clear all Parameters
Click here to Continue
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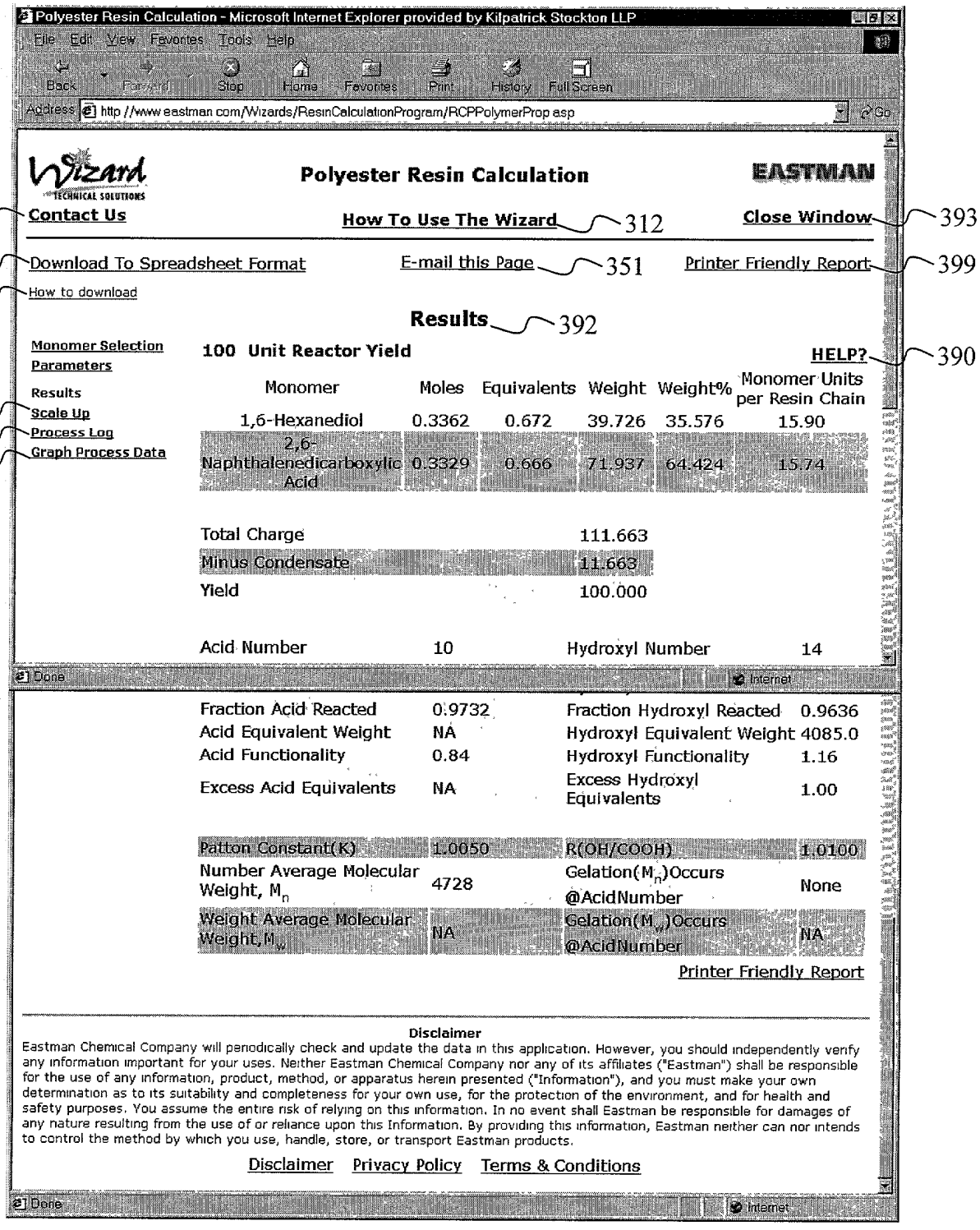
360
372
370
362
376
380
382
378
364
366
374
386
384
390
391
393
312

FIGURE 3E


Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPPolymerProp.asp
Polyester Resin Calculation
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How To Use The Wizard
312
Close Window
393
353
Download To Spreadsheet Format
E-mail this Page
351
Printer Friendly Report
399
355
How to download
Results
392
Monomer Selection Parameters
Results
394
Scale Up
396
Process Log
385
Graph Process Data
100 Unit Reactor Yield
HELP?
390
Monomer
Moles
Equivalents
Weight
Weight%
Monomer Units per Resin Chain
1,6-Hexanediol
0.3362
0.672
39.726
35.576
15.90
2,6-Naphthalenedicarboxylic Acid
0.3329
0.666
71.937
64.424
15.74
Total Charge
111.663
Minus Condensate
11.663
Yield
100.000
Acid Number
10
Hydroxyl Number
14
Done
Internet
Fraction Acid Reacted
0.9732
Fraction Hydroxyl Reacted
0.9636
Acid Equivalent Weight
NA
Hydroxyl Equivalent Weight
4085.0
Acid Functionality
0.84
Hydroxyl Functionality
1.16
Excess Acid Equivalents
NA
Excess Hydroxyl Equivalents
1.00
Patton Constant(K)
1.0050
R(OH/COOH)
1.0100
Number Average Molecular Weight, Mn
4728
Gelation(Mn)Occurs @AcidNumber
None
Weight Average Molecular Weight, Mw
NA
Gelation(Mw)Occurs @AcidNumber
NA
Printer Friendly Report
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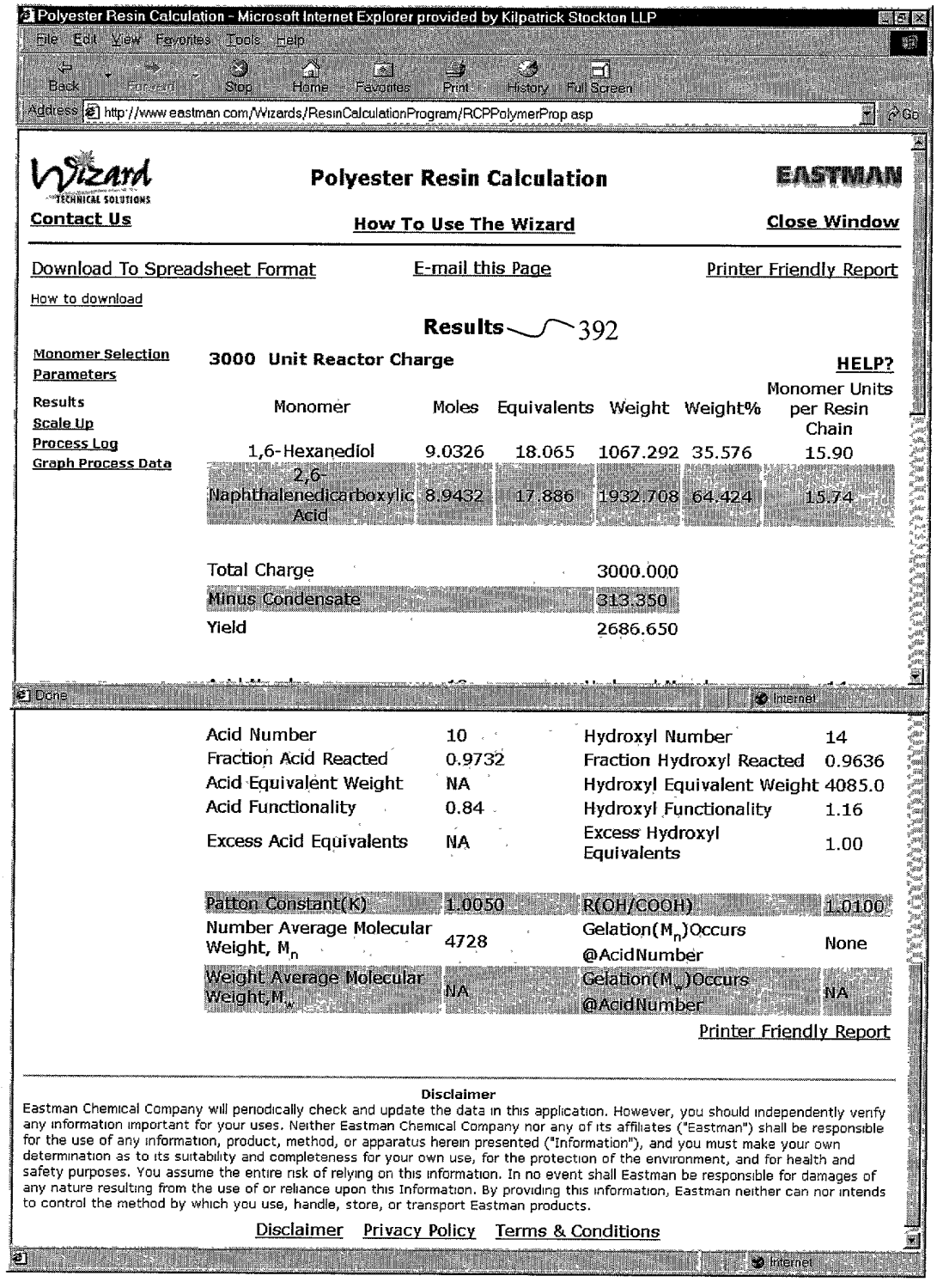
Done
Internet

FIGURE 3F


Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPPolymerProp.asp
Go
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Contact Us
How To Use The Wizard
Close Window
Download To Spreadsheet Format
E-mail this Page
Printer Friendly Report
How to download
Results
392
Monomer Selection Parameters
Results
Scale Up
Process Log
Graph Process Data
3000 Unit Reactor Charge
HELP?
Monomer
Moles
Equivalents
Weight
Weight%
Monomer Units per Resin Chain
1,6-Hexanediol 9.0326 18.065 1067.292 35.576 15.90
2,6-Naphthalenedicarboxylic Acid 8.9432 17.886 1932.708 64.424 15.74
Total Charge 3000.000
Minus Condensate 313.350
Yield 2686.650
Done
Internet
Acid Number 10
Fraction Acid Reacted 0.9732
Acid Equivalent Weight NA
Acid Functionality 0.84
Excess Acid Equivalents NA
Hydroxyl Number 14
Fraction Hydroxyl Reacted 0.9636
Hydroxyl Equivalent Weight 4085.0
Hydroxyl Functionality 1.16
Excess Hydroxyl Equivalents 1.00
Patton Constant(K) 1.0050
R(OH/COOH) 1.0100
Number Average Molecular Weight, M_n 4728
Gelation(M_n)Occurs @AcidNumber None
Weight Average Molecular Weight M_w NA
Gelation(M_w)Occurs @AcidNumber NA
Printer Friendly Report
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FIGURE 3G

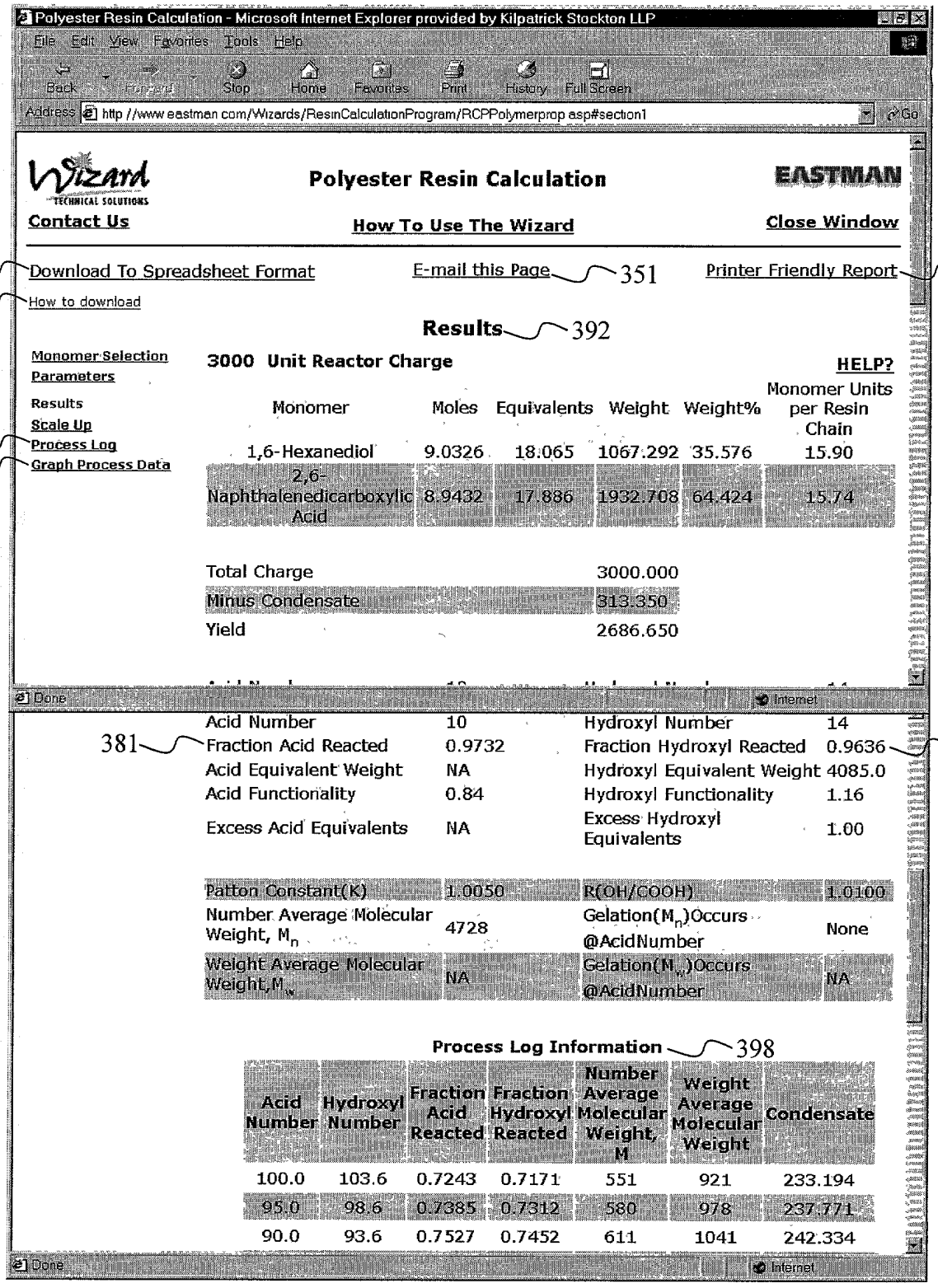
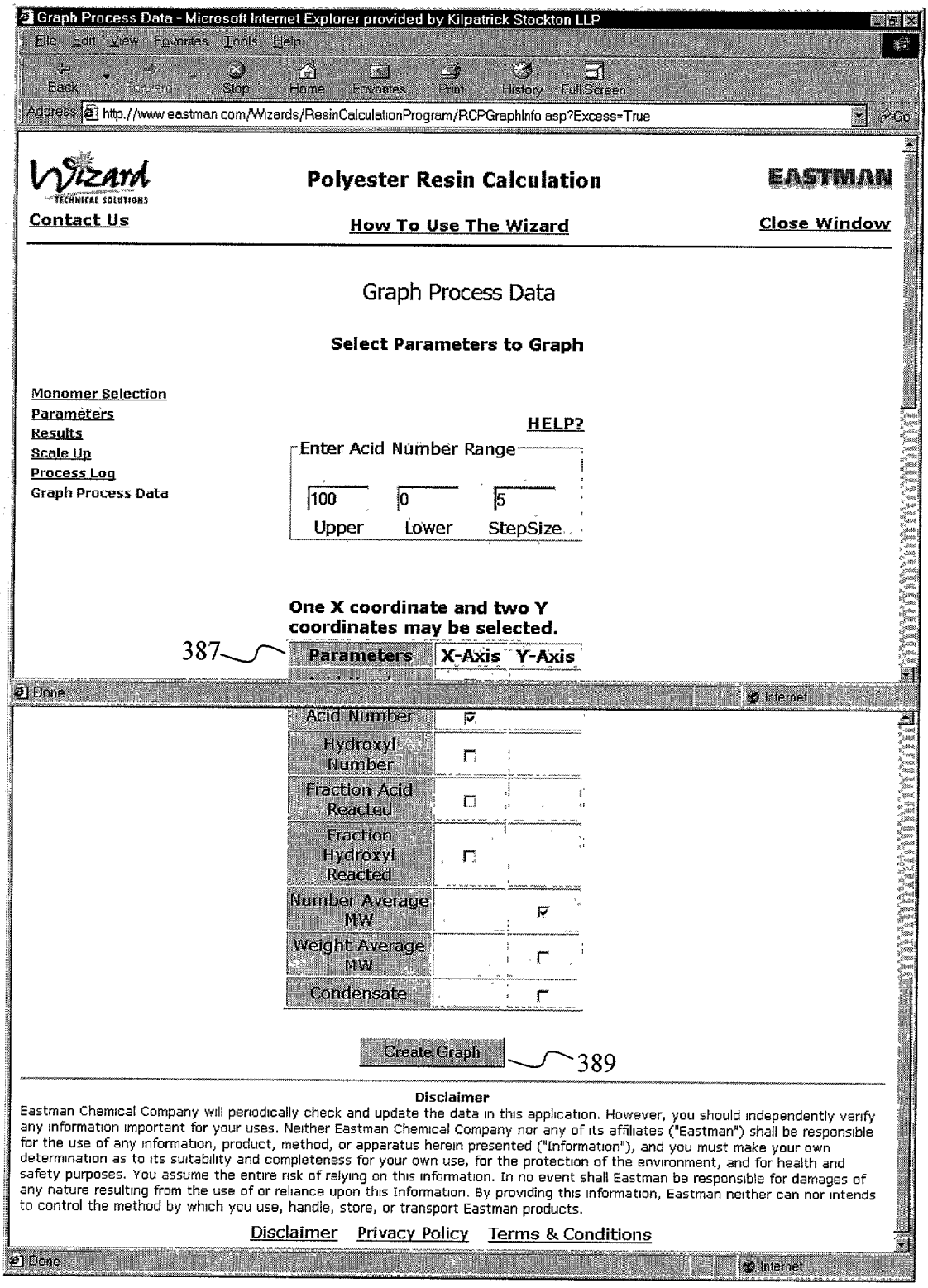

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Polyester Resin Calculation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
353
Download To Spreadsheet Format
E-mail this Page
351
Printer Friendly Report
399
355
How to download
Results
392
Monomer Selection Parameters
Results
Scale Up
396
Process Log
385
Graph Process Data
3000 Unit Reactor Charge
HELP?
Monomer
Moles
Equivalents
Weight
Weight%
Monomer Units per Resin Chain
1,6-Hexanediol
9.0326
18.065
1067.292
35.576
15.90
2,6-Naphthalenedicarboxylic Acid
8.9432
17.886
1932.708
64.424
15.74
Total Charge
3000.000
Minus Condensate
313.350
Yield
2686.650
Acid Number
10
Hydroxyl Number
14
381
Fraction Acid Reacted
0.9732
Fraction Hydroxyl Reacted
0.9636
383
Acid Equivalent Weight
NA
Hydroxyl Equivalent Weight
4085.0
Acid Functionality
0.84
Hydroxyl Functionality
1.16
Excess Acid Equivalents
NA
Excess Hydroxyl Equivalents
1.00
Patton Constant(K)
1.0050
R(OH/COOH)
1.0100
Number Average Molecular Weight, Mn
4728
Gelation(Mn)Occurs @AcidNumber
None
Weight Average Molecular Weight,Mw
NA
Gelation(Mw)Occurs @AcidNumber
NA
Process Log Information
398
Acid Number
Hydroxyl Number
Fraction Acid Reacted
Fraction Hydroxyl Reacted
Number Average Molecular Weight, M
Weight Average Molecular Weight
Condensate
100.0
103.6
0.7243
0.7171
551
921
233.194
95.0
98.6
0.7385
0.7312
580
978
237.771
90.0
93.6
0.7527
0.7452
611
1041
242.334
Done
Internet

FIGURE 3H


Graph Process Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPGraphInfo.asp?Excess=True
Go
Wizard TECHNICAL SOLUTIONS
Polyester Resin Calculation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
Graph Process Data
Select Parameters to Graph
Monomer Selection
Parameters
Results
Scale Up
Process Log
Graph Process Data
HELP?
Enter Acid Number Range
100 Upper
0 Lower
5 StepSize
One X coordinate and two Y coordinates may be selected.
387
Parameters X-Axis Y-Axis
Acid Number
Hydroxyl Number
Fraction Acid Reacted
Fraction Hydroxyl Reacted
Number Average MW
Weight Average MW
Condensate
Create Graph
389
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Done
Internet

FIGURE 3I

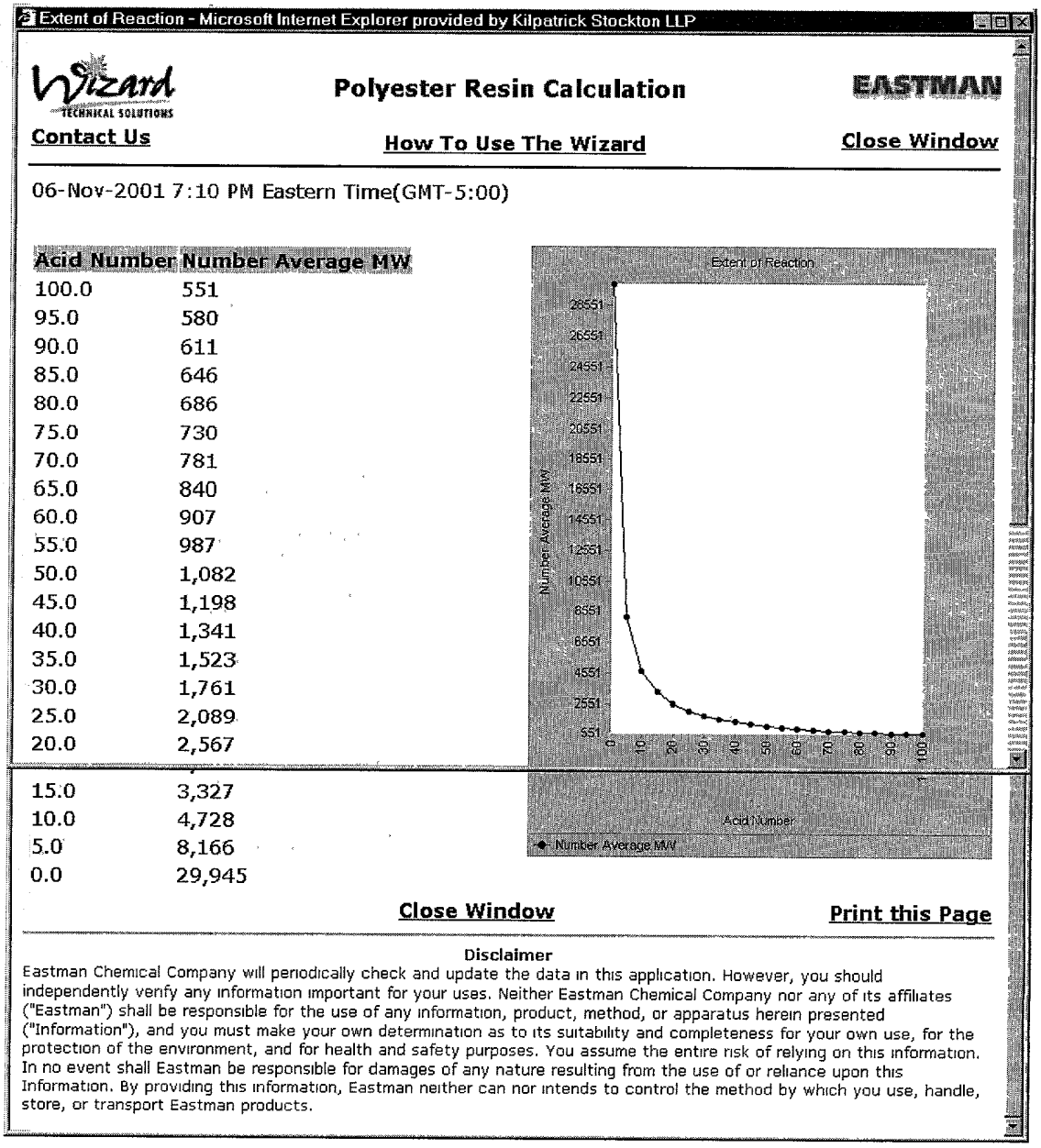
Extent of Reaction - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Wizard
TECHNICAL SOLUTIONS
Polyester Resin Calculation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
06-Nov-2001 7:10 PM Eastern Time(GMT-5:00)
Acid Number Number Average MW
100.0 551
95.0 580
90.0 611
85.0 646
80.0 686
75.0 730
70.0 781
65.0 840
60.0 907
55.0 987
50.0 1,082
45.0 1,198
40.0 1,341
35.0 1,523
30.0 1,761
25.0 2,089
20.0 2,567
15.0 3,327
10.0 4,728
5.0 8,166
0.0 29,945
Extent of Reaction
Number Average MW
Acid Number
Number Average MW
Close Window
Print this Page
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FIGURE 3J

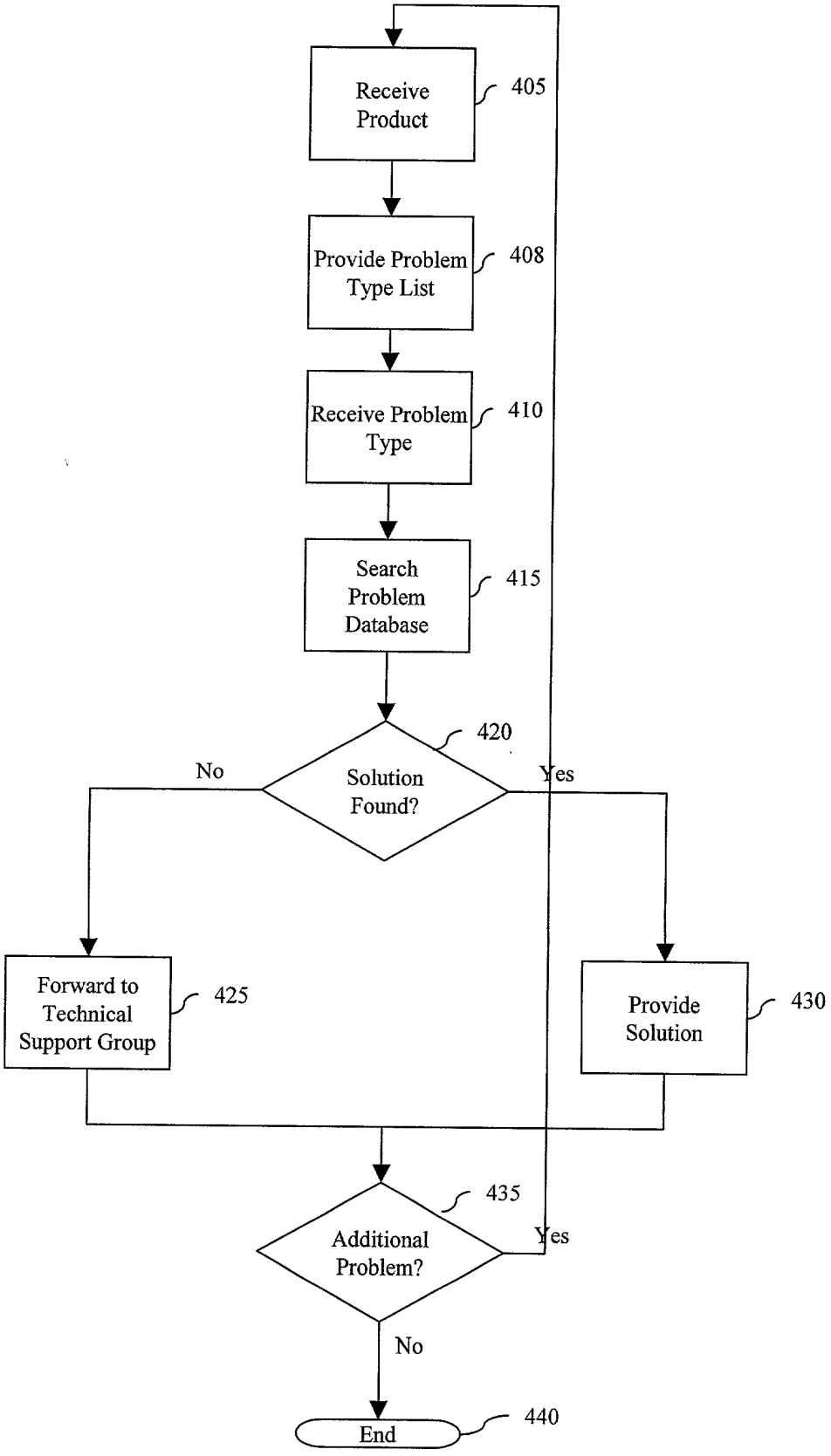
Receive Product
405
Provide Problem Type List
408
Receive Problem Type
410
Search Problem Database
415
Solution Found?
420
No
Yes
Forward to Technical Support Group
425
Provide Solution
430
Additional Problem?
435
Yes
No
End
440

FIG. 4

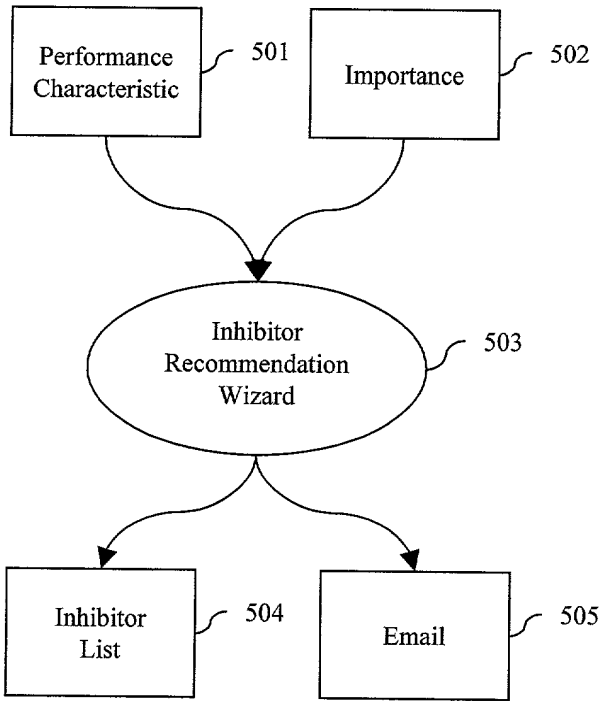
Performance Characteristic
501
Importance
502
Inhibitor Recommendation Wizard
503
Inhibitor List
504
Email
505

FIG. 5A

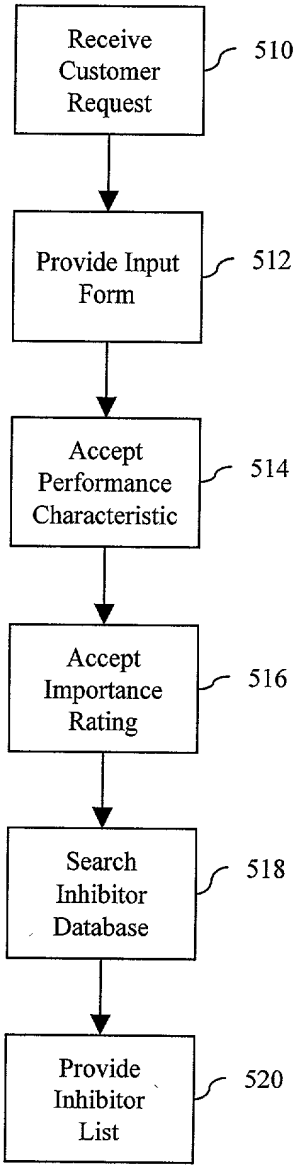
Receive Customer Request
510
Provide Input Form
512
Accept Performance Characteristic
514
Accept Importance Rating
516
Search Inhibitor Database
518
Provide Inhibitor List
520

FIG. 5B

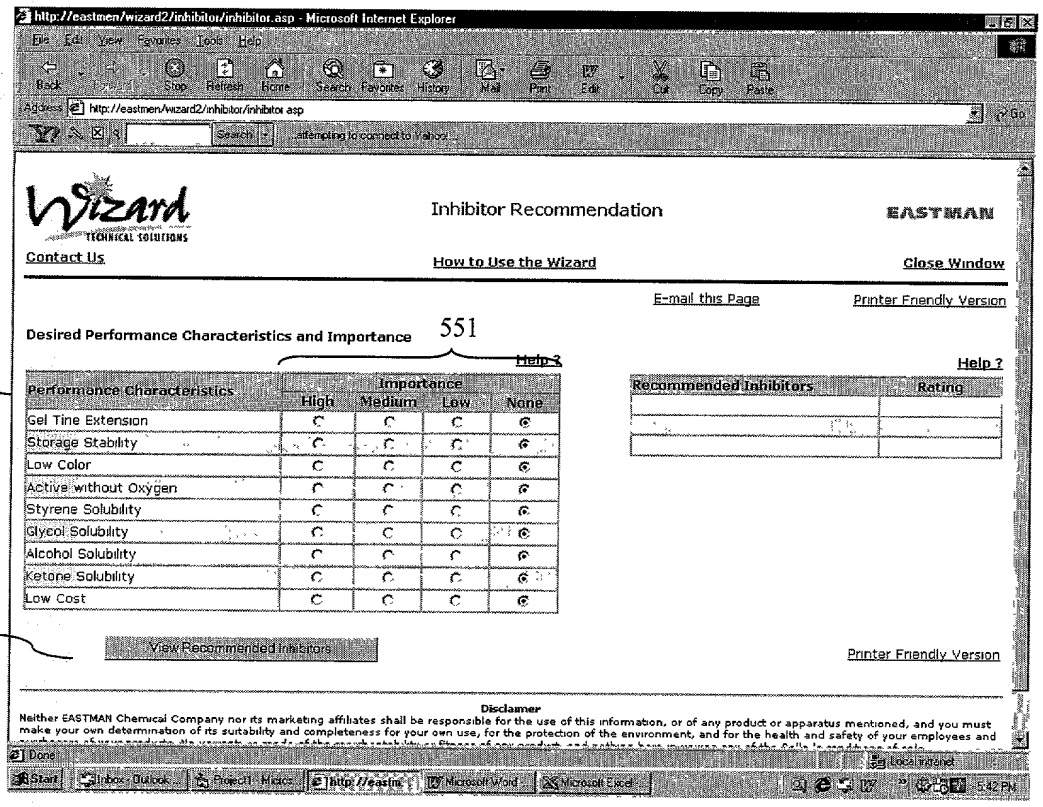
http://eastmen/wizard2/inhibitor/inhibitor.asp - Microsoft Internet Explorer
Inhibitor Recommendation
EASTMAN
Contact Us
How to Use the Wizard
Close Window
E-mail this Page
Printer Friendly Version
Desired Performance Characteristics and Importance
551
550
Help ?
Performance Characteristics
Importance
High
Medium
Low
None
Gel Tine Extension
Storage Stability
Low Color
Active without Oxygen
Styrene Solubility
Glycol Solubility
Alcohol Solubility
Ketone Solubility
Low Cost
Recommended Inhibitors
Rating
552
View Recommended Inhibitors
Printer Friendly Version
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FIG. 5C

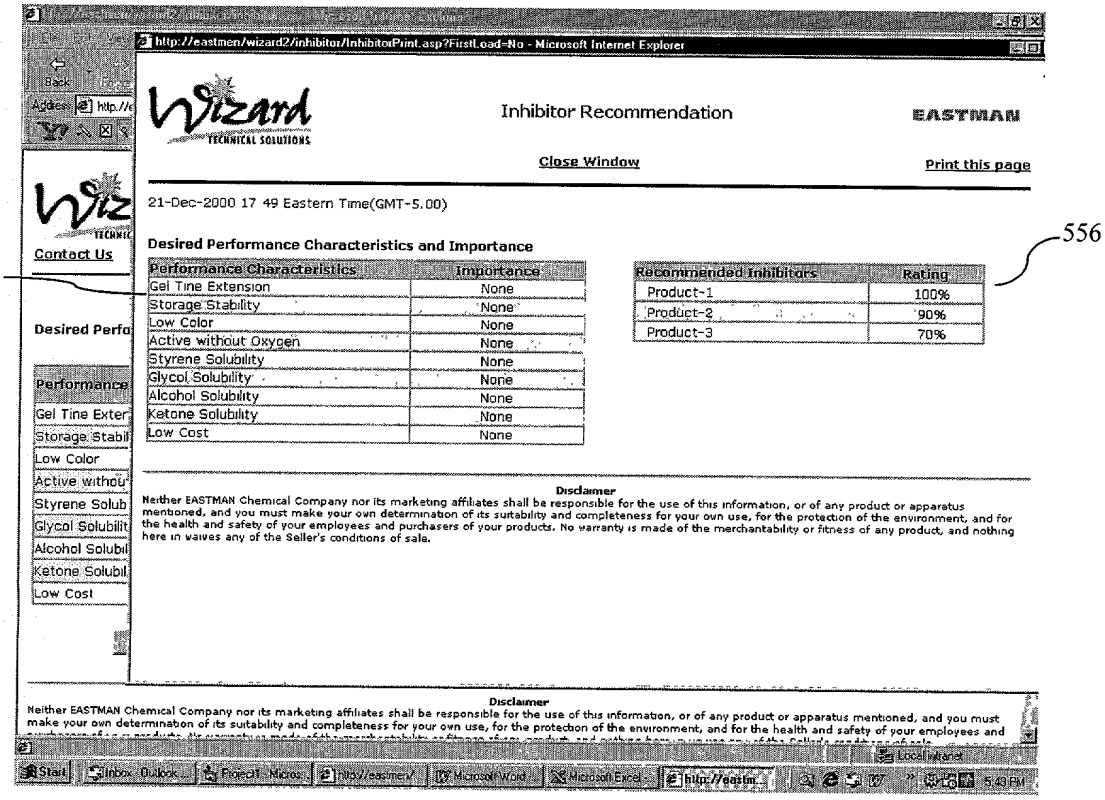
http://eastmen/wizard2/inhibitor/InhibitorPrint.asp?FirstLoad=No - Microsoft Internet Explorer
Inhibitor Recommendation
EASTMAN
Close Window
Print this page
21-Dec-2000 17 49 Eastern Time(GMT-5.00)
Contact Us
Desired Performance Characteristics and Importance
554
556
Performance Characteristics
Importance
Gel Tine Extension
None
Storage Stability
None
Low Color
None
Active without Oxygen
None
Styrene Solubility
None
Glycol Solubility
None
Alcohol Solubility
None
Ketone Solubility
None
Low Cost
None
Recommended Inhibitors
Rating
Product-1
100%
Product-2
90%
Product-3
70%
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FIG. 5D

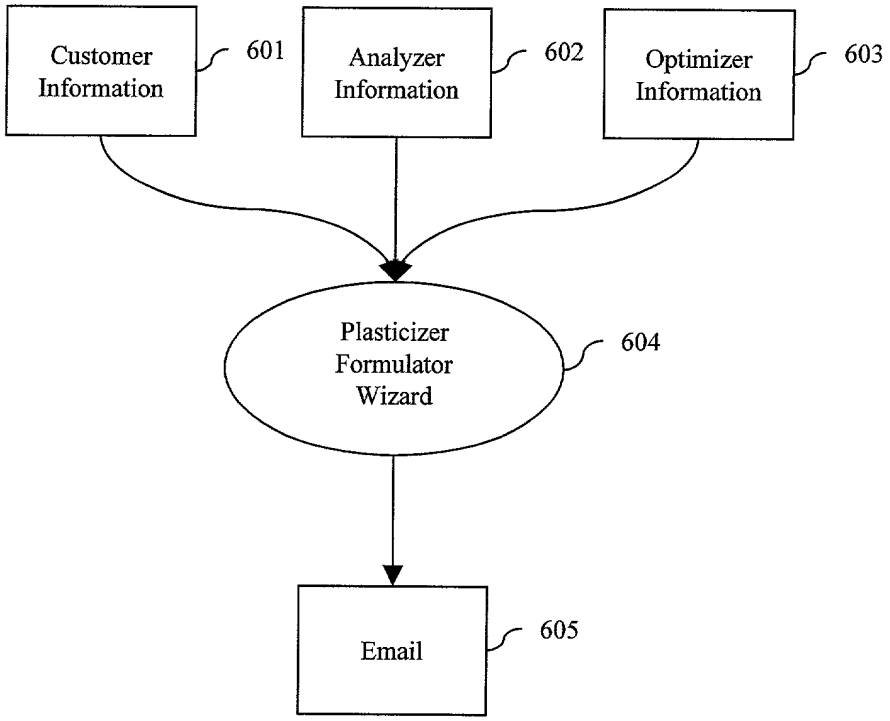
Customer Information
601
Analyzer Information
602
Optimizer Information
603
Plasticizer Formulator Wizard
604
Email
605

FIG. 6A

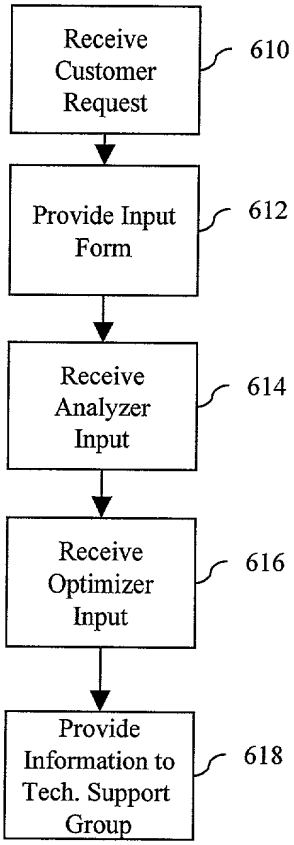
Receive Customer Request
610
Provide Input Form
612
Receive Analyzer Input
614
Receive Optimizer Input
616
Provide Information to Tech. Support Group
618

FIG. 6B

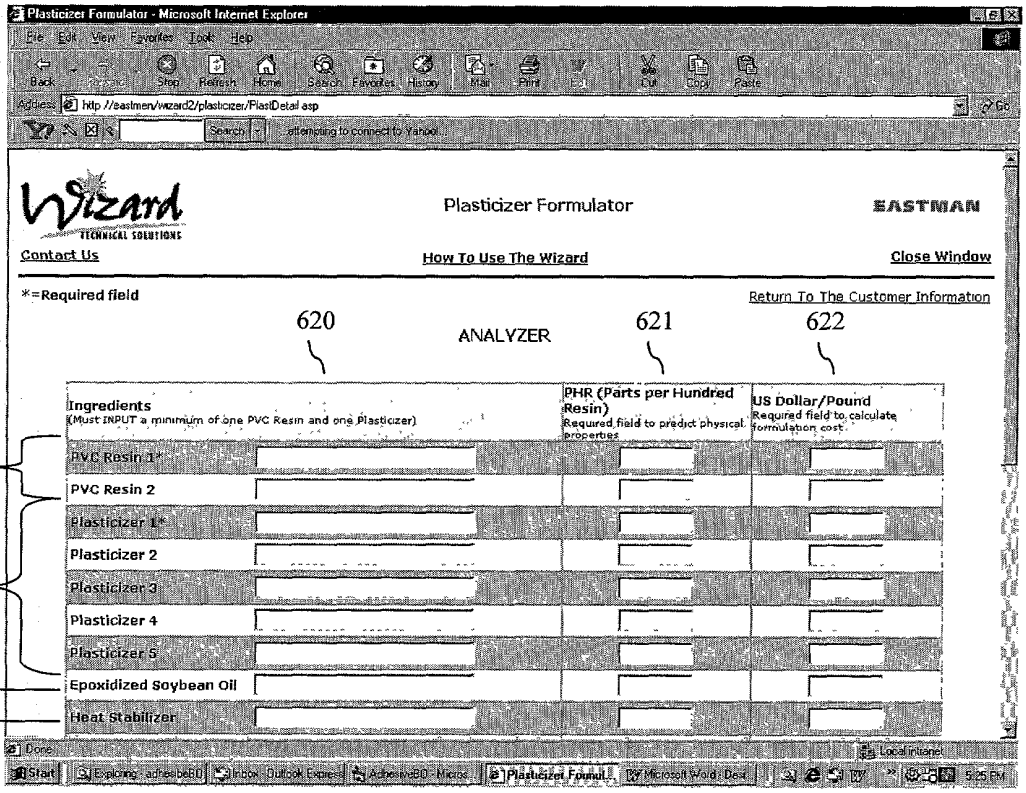
Plasticizer Formulator - Microsoft Internet Explorer
Plasticizer Formulator
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required field
Return To The Customer Information
620
ANALYZER
621
622
Ingredients
(Must INPUT a minimum of one PVC Resin and one Plasticizer)
PHR (Parts per Hundred Resin)
Required field to predict physical properties
US Dollar/Pound
Required field to calculate formulation cost.
623
PVC Resin 1*
PVC Resin 2
624
Plasticizer 1*
Plasticizer 2
Plasticizer 3
Plasticizer 4
Plasticizer 5
625
Epoxidized Soybean Oil
626
Heat Stabilizer

FIG. 6C

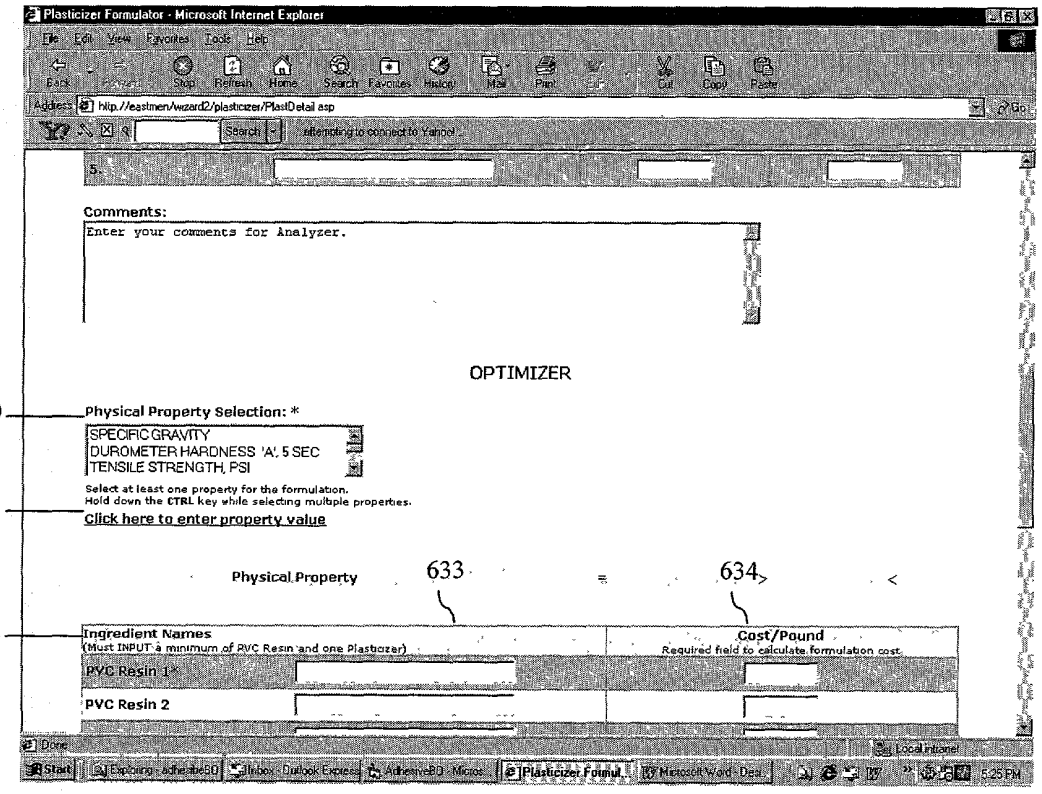
Plasticizer Formulator - Microsoft Internet Explorer
Comments:
Enter your comments for Analyzer.
OPTIMIZER
630
Physical Property Selection: *
SPECIFIC GRAVITY
DUROMETER HARDNESS 'A', 5 SEC
TENSILE STRENGTH, PSI
631
Select at least one property for the formulation.
Hold down the CTRL key while selecting multiple properties.
Click here to enter property value
Physical Property
633
=
634
<
632
Ingredient Names
(Must INPUT a minimum of PVC Resin and one Plasticizer)
Cost/Pound
Required field to calculate formulation cost.
PVC Resin 1*
PVC Resin 2

FIG. 6D

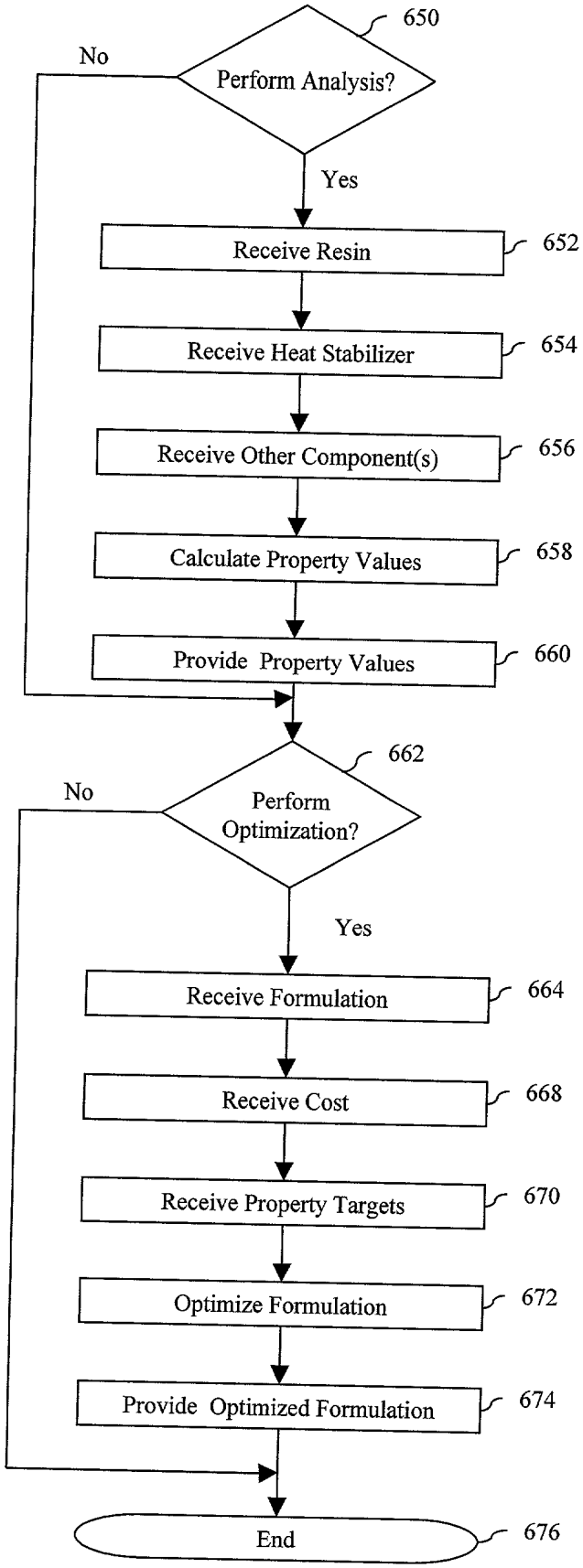
650
Perform Analysis?
No
Yes
Receive Resin
652
Receive Heat Stabilizer
654
Receive Other Component(s)
656
Calculate Property Values
658
Provide Property Values
660
662
Perform Optimization?
No
Yes
Receive Formulation
664
Receive Cost
668
Receive Property Targets
670
Optimize Formulation
672
Provide Optimized Formulation
674
End
676

FIG. 6E

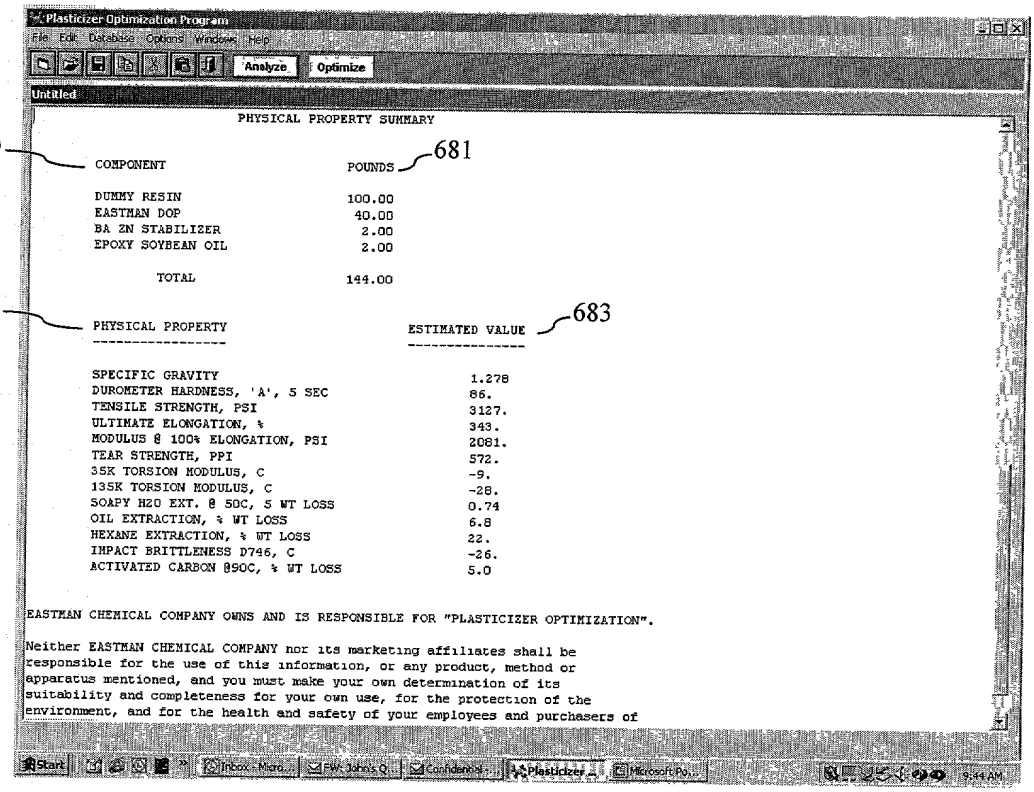
Plasticizer Optimization Program
File Edit Database Options Windows Help
Analyze
Optimize
Untitled
PHYSICAL PROPERTY SUMMARY
680
COMPONENT
POUNDS
681
DUMMY RESIN 100.00
EASTMAN DOP 40.00
BA ZN STABILIZER 2.00
EPOXY SOYBEAN OIL 2.00
TOTAL 144.00
682
PHYSICAL PROPERTY
ESTIMATED VALUE
683
SPECIFIC GRAVITY 1.278
DUROMETER HARDNESS, 'A', 5 SEC 86.
TENSILE STRENGTH, PSI 3127.
ULTIMATE ELONGATION, % 343.
MODULUS @ 100% ELONGATION, PSI 2081.
TEAR STRENGTH, PPI 572.
35K TORSION MODULUS, C -9.
135K TORSION MODULUS, C -28.
SOAPY H2O EXT. @ 50C, 5 WT LOSS 0.74
OIL EXTRACTION, % WT LOSS 6.8
HEXANE EXTRACTION, % WT LOSS 22.
IMPACT BRITTLENESS D746, C -26.
ACTIVATED CARBON @90C, % WT LOSS 5.0
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FIG. 6F

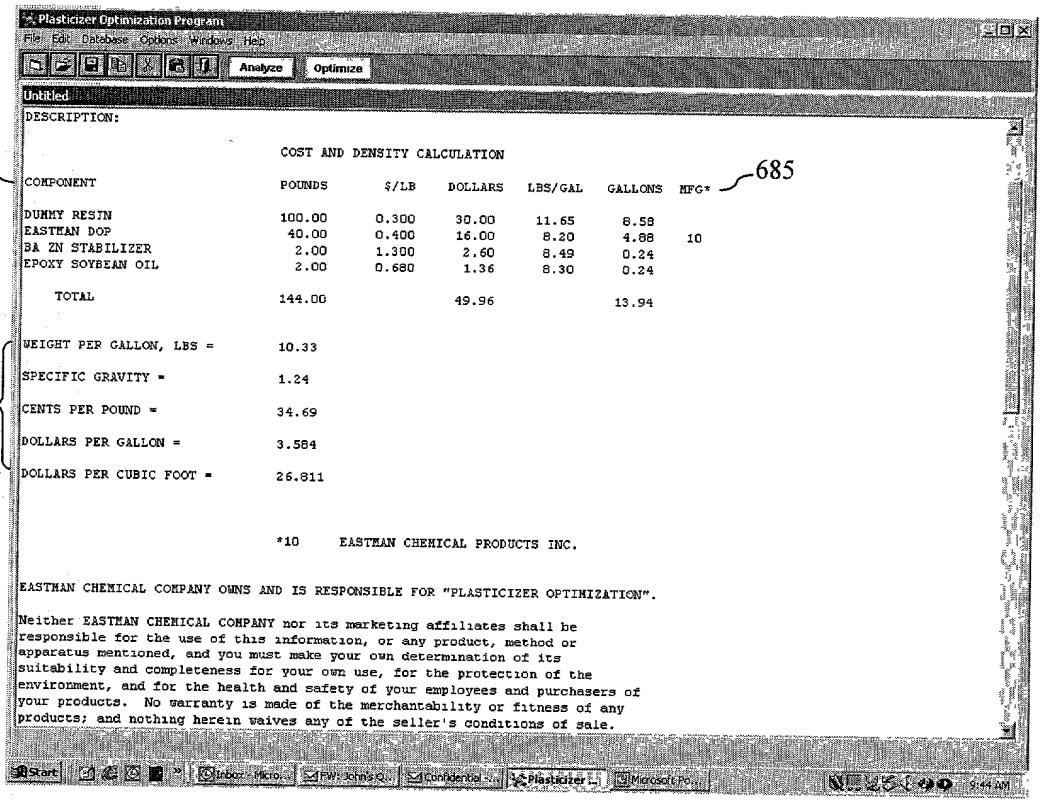
Plasticizer Optimization Program
File Edit Database Options Windows Help
Analyze
Optimize
Untitled
DESCRIPTION:
COST AND DENSITY CALCULATION
684
685
COMPONENT POUNDS $/LB DOLLARS LBS/GAL GALLONS MFG*
DUMMY RESIN 100.00 0.300 30.00 11.65 8.58
EASTMAN DOP 40.00 0.400 16.00 8.20 4.88 10
BA ZN STABILIZER 2.00 1.300 2.60 8.49 0.24
EPOXY SOYBEAN OIL 2.00 0.680 1.36 8.30 0.24
TOTAL 144.00 49.96 13.94
686
WEIGHT PER GALLON, LBS = 10.33
SPECIFIC GRAVITY = 1.24
CENTS PER POUND = 34.69
DOLLARS PER GALLON = 3.584
DOLLARS PER CUBIC FOOT = 26.811
*10 EASTMAN CHEMICAL PRODUCTS INC.
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FIG. 6G

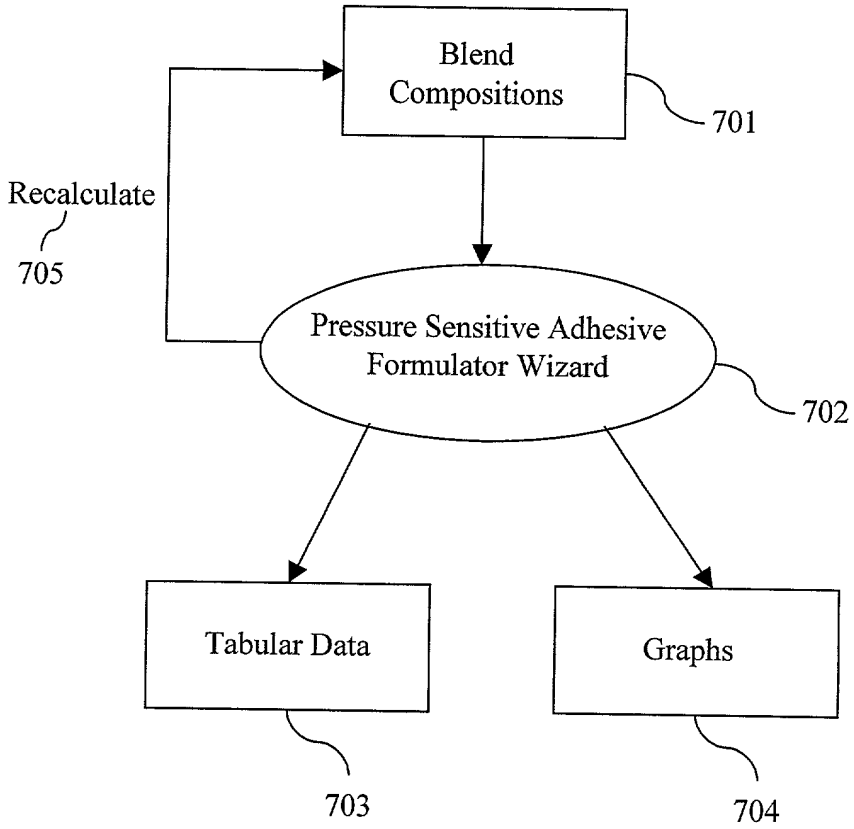

Blend Compositions
701
Recalculate
705
Pressure Sensitive Adhesive Formulator Wizard
702
Tabular Data
703
Graphs
704

FIGURE 7A

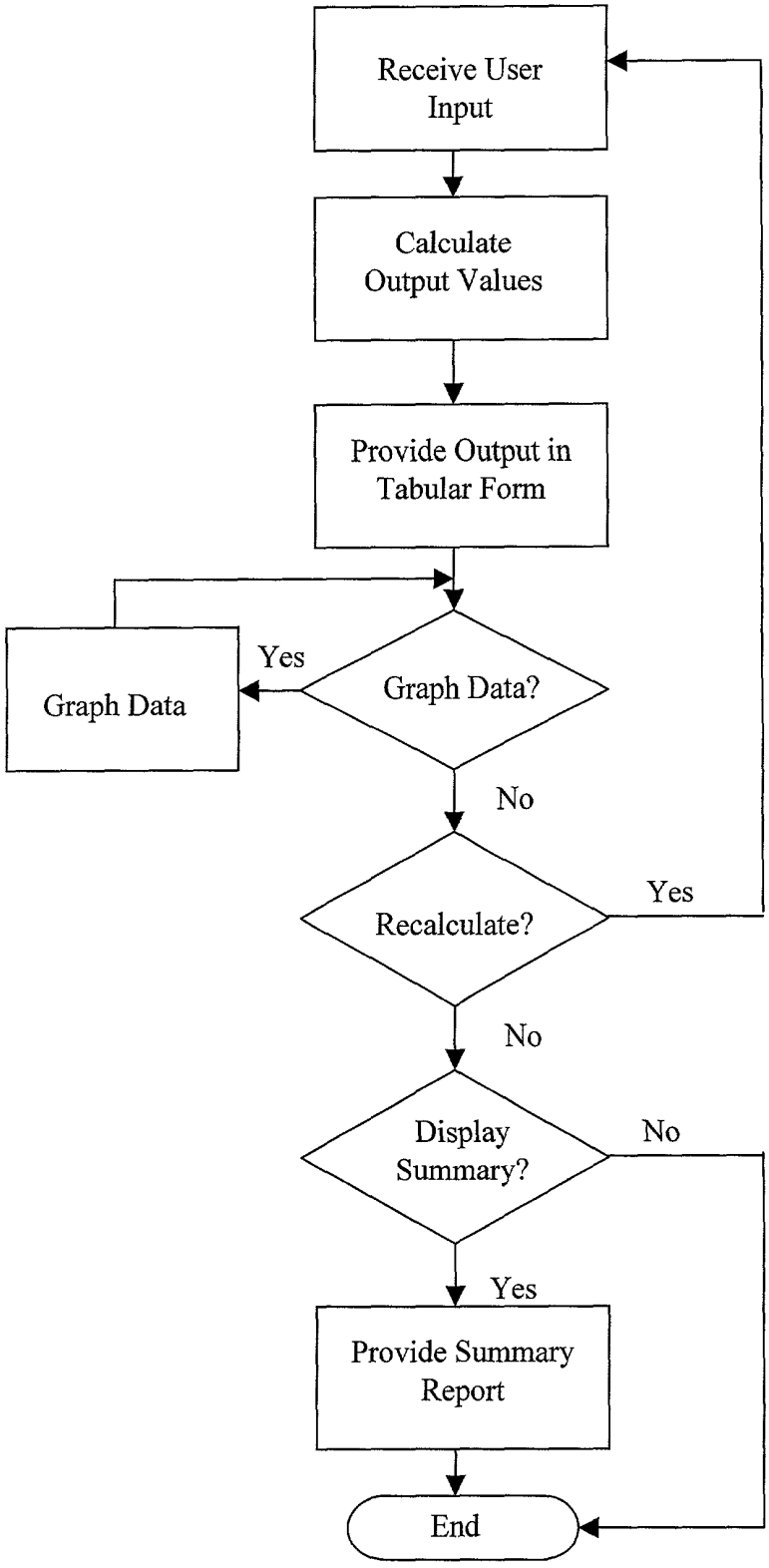
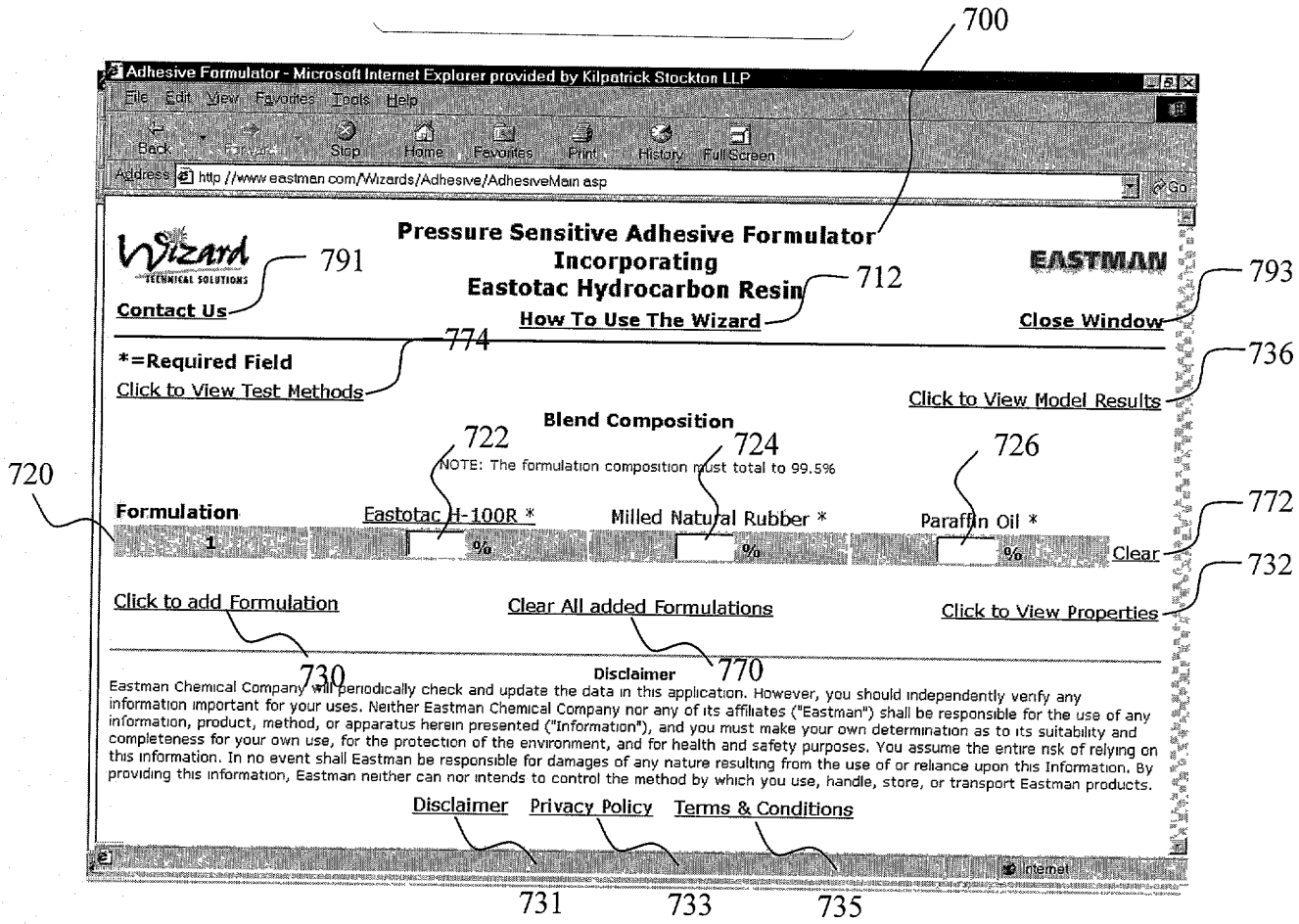

Receive User Input
Calculate Output Values
Provide Output in Tabular Form
Graph Data?
Yes
Graph Data
No
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 7B


700
Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/Adhesive/AdhesiveMain.asp
Pressure Sensitive Adhesive Formulator
Incorporating
Eastotac Hydrocarbon Resin
EASTMAN
791
712
793
Contact Us
How To Use The Wizard
Close Window
774
*=Required Field
Click to View Test Methods
736
Click to View Model Results
Blend Composition
722
724
726
720
NOTE: The formulation composition must total to 99.5%
Formulation
Eastotac H-100R *
Milled Natural Rubber *
Paraffin Oil *
772
1
%
%
%
Clear
732
Click to add Formulation
Clear All added Formulations
Click to View Properties
730
770
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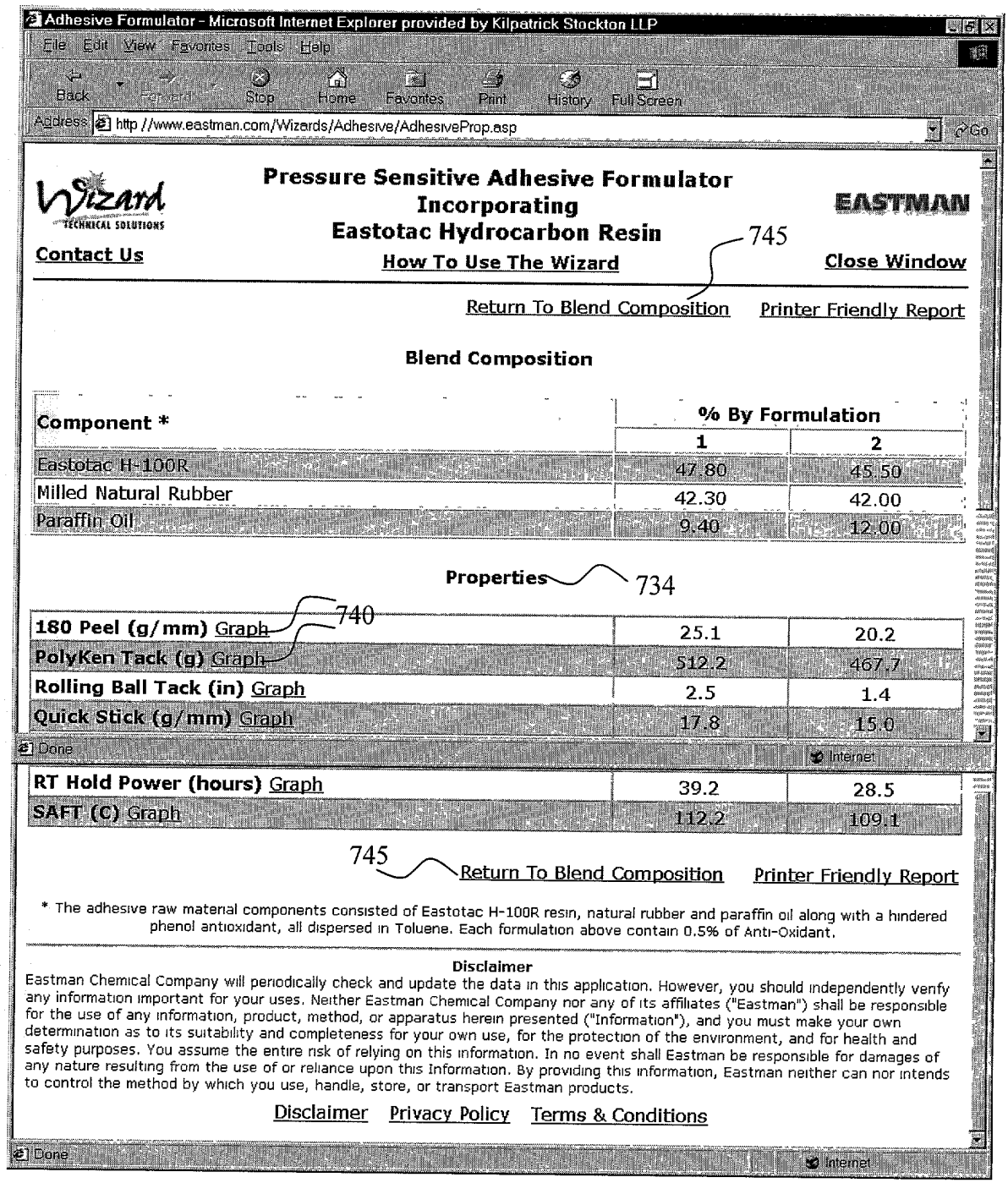
Privacy Policy
Terms & Conditions
731
733
735
Internet

FIGURE 7C


Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/Adhesive/AdhesiveProp.asp
Go
Wizard TECHNICAL SOLUTIONS
Pressure Sensitive Adhesive Formulator
Incorporating
Eastotac Hydrocarbon Resin
EASTMAN
Contact Us
How To Use The Wizard
Close Window
745
Return To Blend Composition
Printer Friendly Report
Blend Composition
Component *
% By Formulation
1
2
Eastotac H-100R
47.80
45.50
Milled Natural Rubber
42.30
42.00
Paraffin Oil
9.40
12.00
Properties
734
740
180 Peel (g/mm) Graph
25.1
20.2
PolyKen Tack (g) Graph
512.2
467.7
Rolling Ball Tack (in) Graph
2.5
1.4
Quick Stick (g/mm) Graph
17.8
15.0
Done
Internet
RT Hold Power (hours) Graph
39.2
28.5
SAFT (C) Graph
112.2
109.1
745
Return To Blend Composition
Printer Friendly Report
* The adhesive raw material components consisted of Eastotac H-100R resin, natural rubber and paraffin oil along with a hindered phenol antioxidant, all dispersed in Toluene. Each formulation above contain 0.5% of Anti-Oxidant.
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Done
Internet

FIGURE 7D

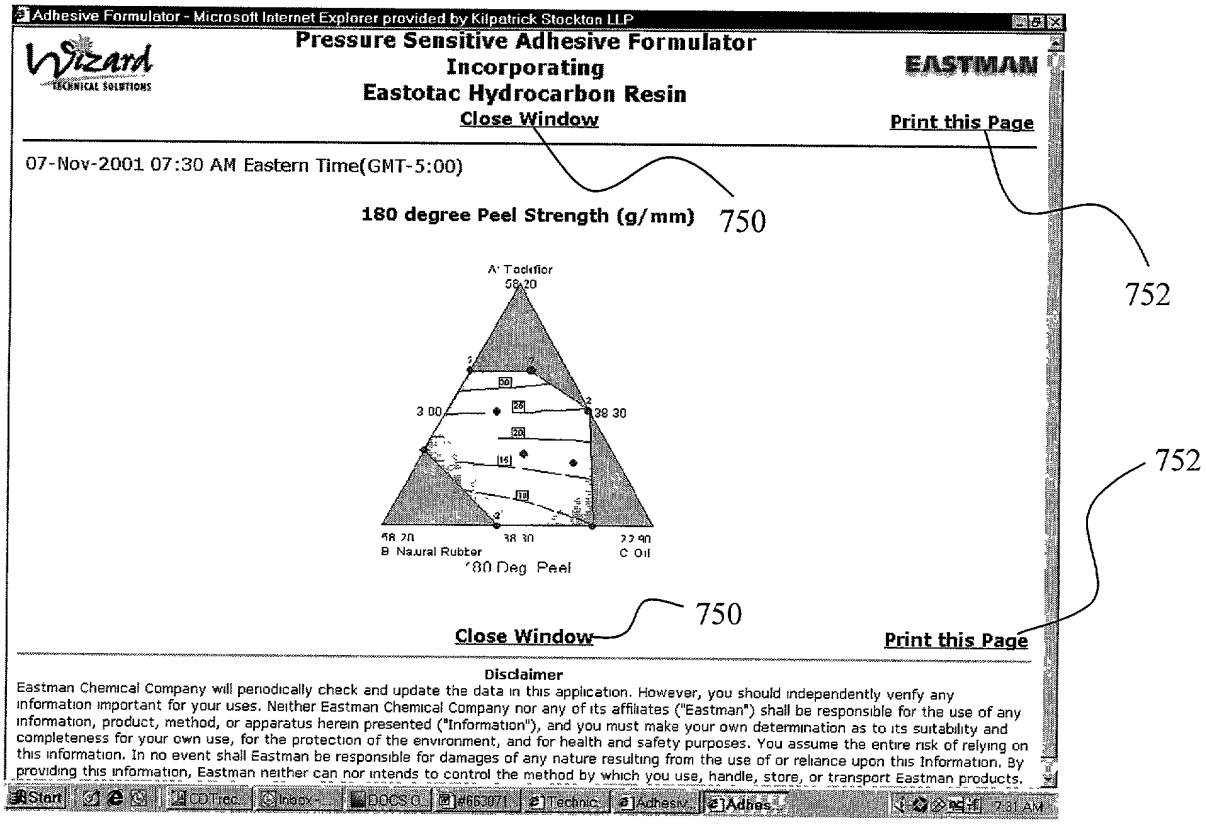
Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Pressure Sensitive Adhesive Formulator
Incorporating
Eastotac Hydrocarbon Resin
Close Window
Print this Page
EASTMAN
07-Nov-2001 07:30 AM Eastern Time(GMT-5:00)
180 degree Peel Strength (g/mm)
750
752
A: Tackifier
58 20
3 00
38 30
B Natural Rubber
C Oil
180 Deg Peel
752
750
Close Window
Print this Page
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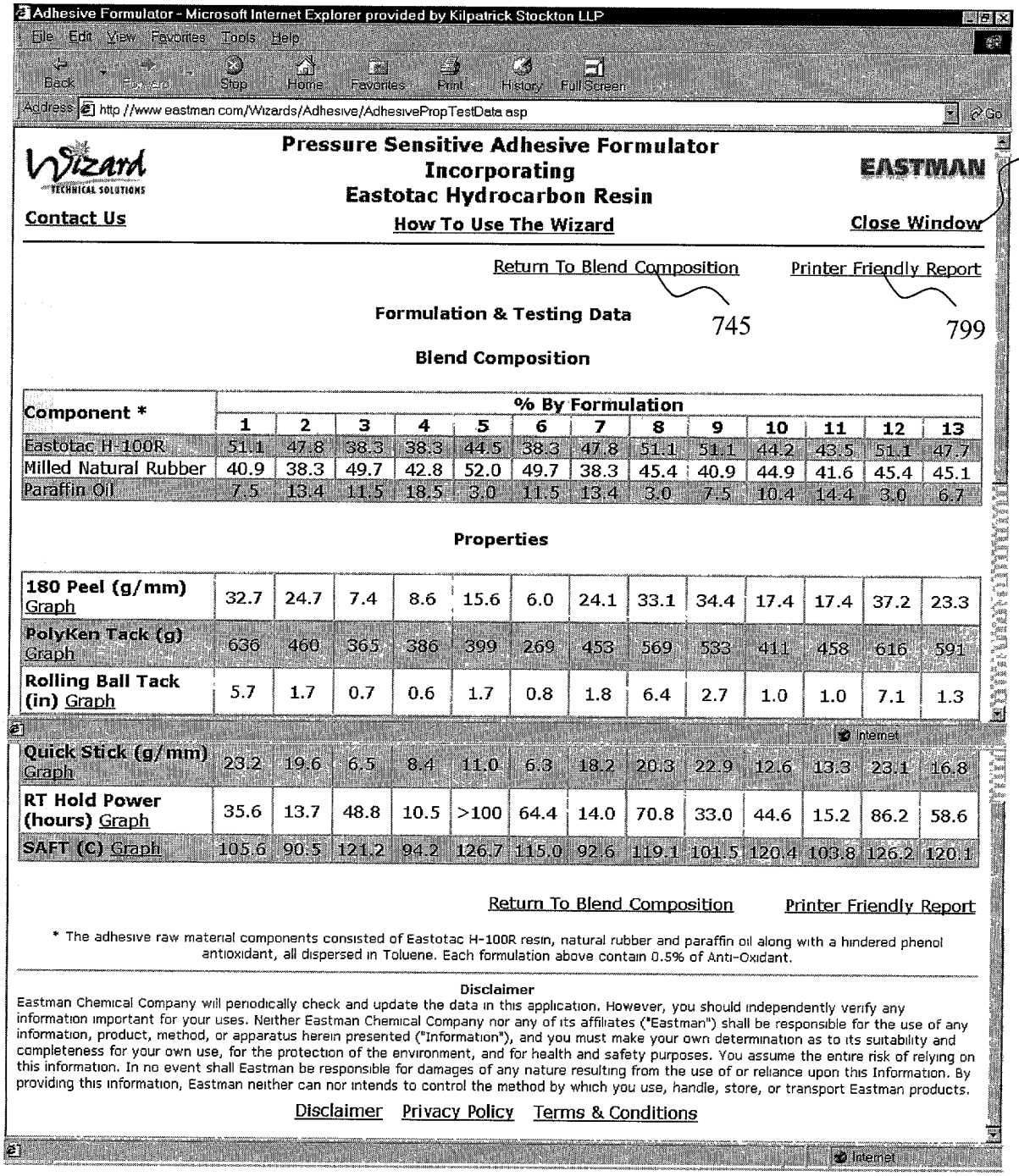
FIGURE 7E


Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/Adhesive/AdhesivePropTestData.asp
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Incorporating
Eastotac Hydrocarbon Resin
EASTMAN
793
Contact Us
How To Use The Wizard
Close Window
Return To Blend Composition
Printer Friendly Report
745
799
Formulation & Testing Data
Blend Composition
Component * | % By Formulation | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13
Eastotac H-100R | 51.1 | 47.8 | 38.3 | 38.3 | 44.5 | 38.3 | 47.8 | 51.1 | 51.1 | 44.2 | 43.5 | 51.1 | 47.7
Milled Natural Rubber | 40.9 | 38.3 | 49.7 | 42.8 | 52.0 | 49.7 | 38.3 | 45.4 | 40.9 | 44.9 | 41.6 | 45.4 | 45.1
Paraffin Oil | 7.5 | 13.4 | 11.5 | 18.5 | 3.0 | 11.5 | 13.4 | 3.0 | 7.5 | 10.4 | 14.4 | 3.0 | 6.7
Properties
180 Peel (g/mm) Graph | 32.7 | 24.7 | 7.4 | 8.6 | 15.6 | 6.0 | 24.1 | 33.1 | 34.4 | 17.4 | 17.4 | 37.2 | 23.3
PolyKen Tack (g) Graph | 636 | 460 | 365 | 386 | 399 | 269 | 453 | 569 | 533 | 411 | 458 | 616 | 591
Rolling Ball Tack (in) Graph | 5.7 | 1.7 | 0.7 | 0.6 | 1.7 | 0.8 | 1.8 | 6.4 | 2.7 | 1.0 | 1.0 | 7.1 | 1.3
Internet
Quick Stick (g/mm) Graph | 23.2 | 19.6 | 6.5 | 8.4 | 11.0 | 6.3 | 18.2 | 20.3 | 22.9 | 12.6 | 13.3 | 23.1 | 16.8
RT Hold Power (hours) Graph | 35.6 | 13.7 | 48.8 | 10.5 | >100 | 64.4 | 14.0 | 70.8 | 33.0 | 44.6 | 15.2 | 86.2 | 58.6
SAFT (C) Graph | 105.6 | 90.5 | 121.2 | 94.2 | 126.7 | 115.0 | 92.6 | 119.1 | 101.5 | 120.4 | 103.8 | 126.2 | 120.1
Return To Blend Composition
Printer Friendly Report
* The adhesive raw material components consisted of Eastotac H-100R resin, natural rubber and paraffin oil along with a hindered phenol antioxidant, all dispersed in Toluene. Each formulation above contain 0.5% of Anti-Oxidant.
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FIGURE 7F

Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Wizard TECHNICAL SOLUTIONS

Pressure Sensitive Adhesive Formulator
Incorporating
Eastotac Hydrocarbon Resin

EASTMAN

Close Window 793 Print this Page 752

06-Nov-2001 8:00 PM Eastern Time(GMT-5:00)

Formulation & Testing Data

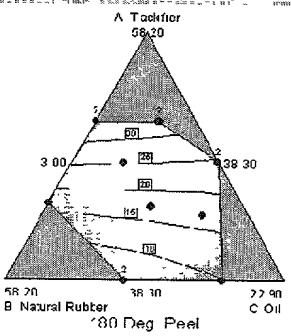
Blend Composition

Component *	% By Formulation												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Eastotac H-100R	51.1	47.8	38.3	38.3	44.5	38.3	47.8	51.1	51.1	44.2	43.5	51.1	47.7
Milled Natural Rubber	40.9	38.3	49.7	42.8	52.0	49.7	38.3	45.4	40.9	44.9	41.6	45.4	45.1
Paraffin Oil	7.5	13.4	11.5	18.5	3.0	11.5	13.4	3.0	7.5	10.4	14.4	3.0	6.7

Properties

180 Peel(g/mm)	32.7	24.7	7.4	8.6	15.6	6.0	24.1	33.1	34.4	17.4	17.4	37.2	23.3
PolyKen Tack (g)	636	460	365	386	399	269	453	569	533	411	458	616	591
Rolling Ball Tack (in)	5.7	1.7	0.7	0.6	1.7	0.8	1.8	6.4	2.7	1.0	1.0	7.1	1.3
Quick Stick (g/mm)	23.2	19.6	6.5	8.4	11.0	6.3	18.2	20.3	22.9	12.6	13.3	23.1	16.8
RT Hold Power (hours)	35.6	13.7	48.8	10.5	>100	64.4	14.0	70.8	33.0	44.6	15.2	86.2	58.6
SAFT (C)	105.6	90.5	121.2	94.2	126.7	115.0	92.6	119.1	101.5	120.4	103.8	126.2	120.1

180 Peel(g/mm)



PolyKen Tack (g)

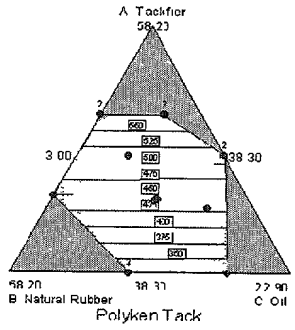


FIGURE 7G

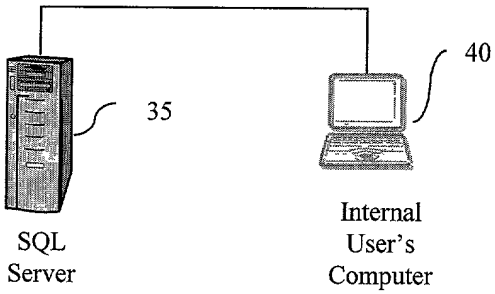


FIG. 8

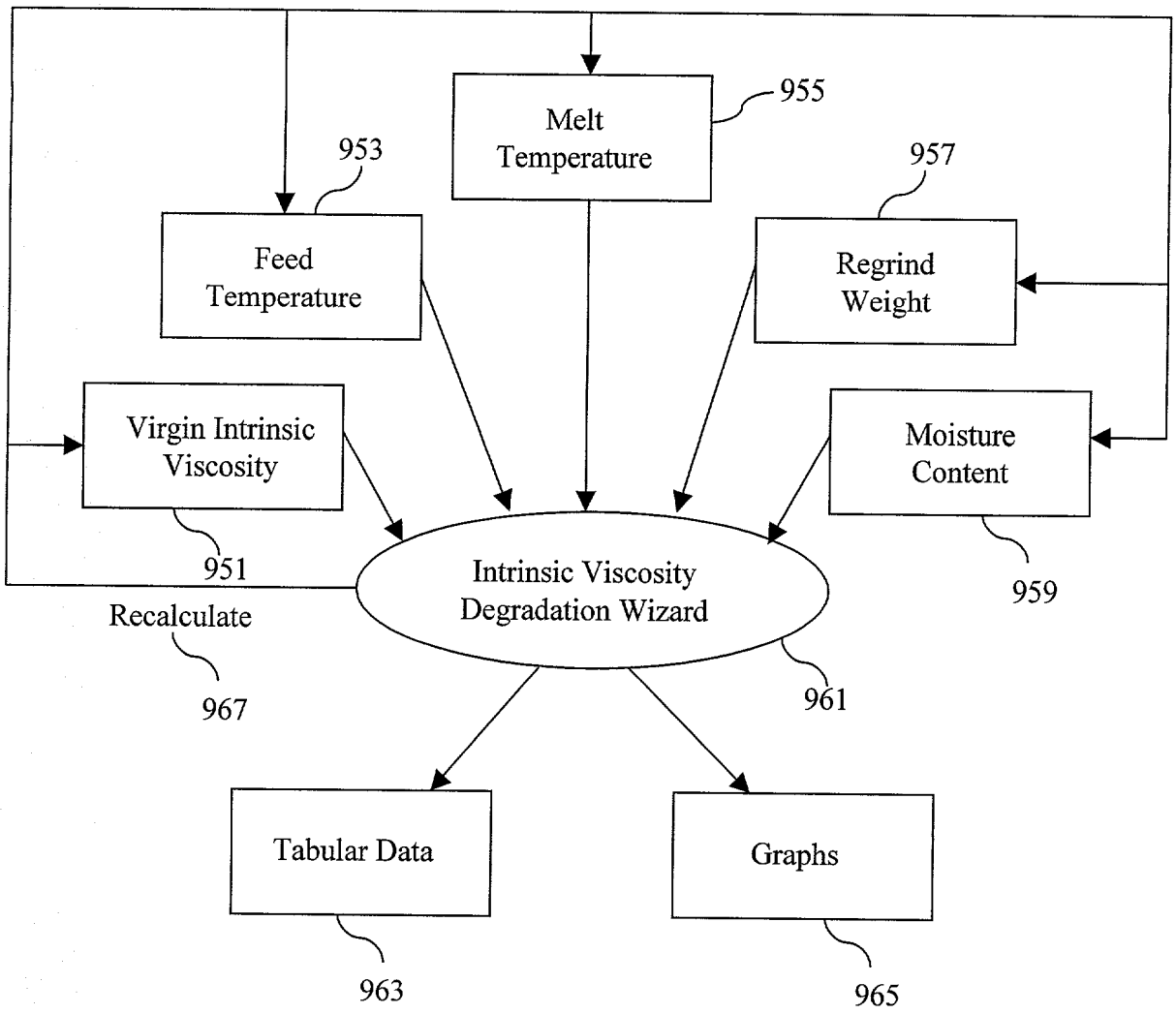

Melt Temperature
955
953
Feed Temperature
957
Regrind Weight
Virgin Intrinsic Viscosity
Moisture Content
951
959
Recalculate
967
Intrinsic Viscosity Degradation Wizard
961
Tabular Data
Graphs
963
965

FIGURE 9A

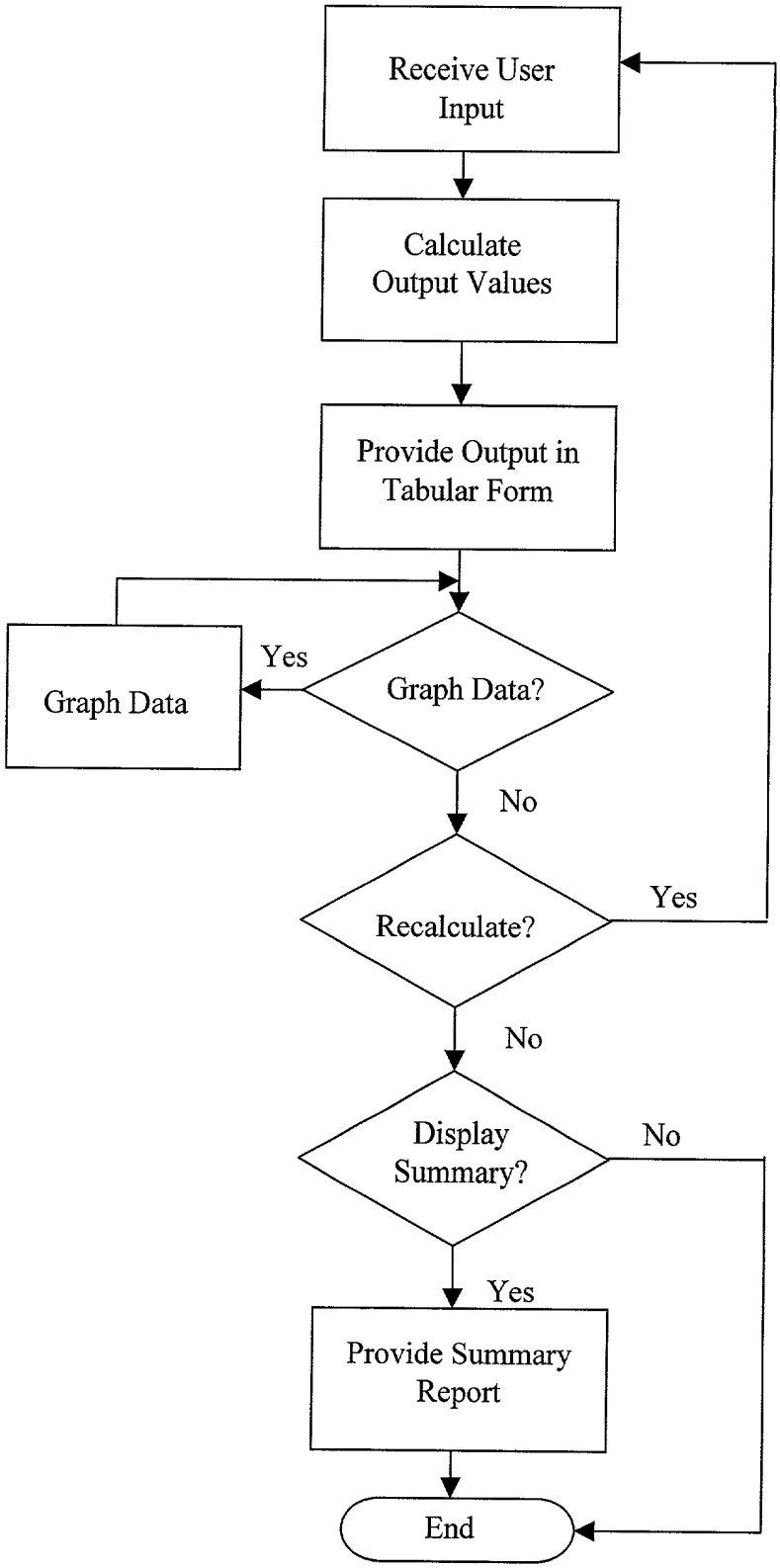
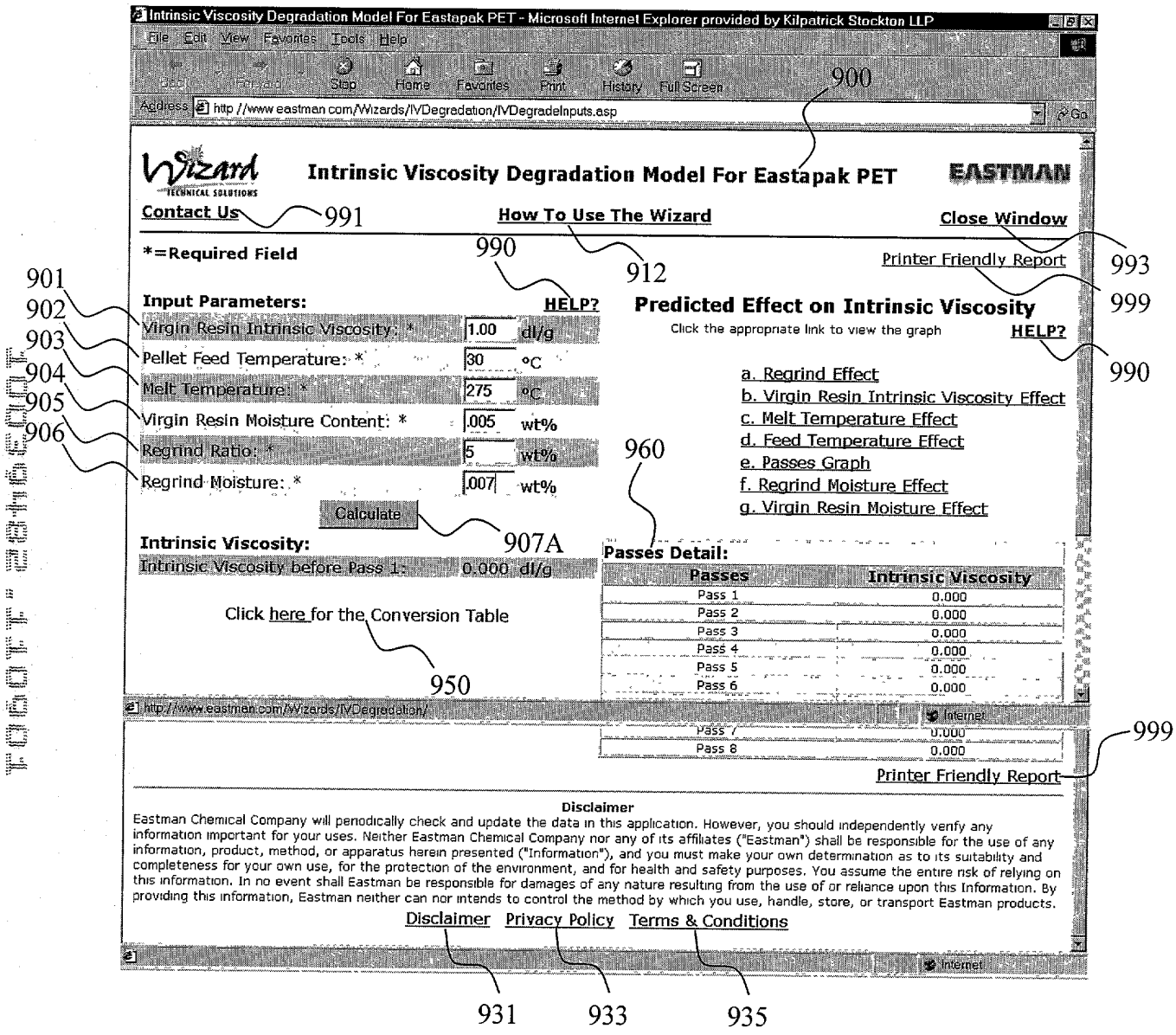

Receive User Input
Calculate Output Values
Provide Output in Tabular Form
Graph Data?
Yes
Graph Data
No
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 9B


Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
900
Intrinsic Viscosity Degradation Model For Eastapak PET
EASTMAN
Contact Us
991
How To Use The Wizard
912
Close Window
993
*=Required Field
990
Printer Friendly Report
999
901
902
903
904
905
906
Input Parameters:
HELP?
Virgin Resin Intrinsic Viscosity: * 1.00 dl/g
Pellet Feed Temperature: * 30 °C
Melt Temperature: * 275 °C
Virgin Resin Moisture Content: * .005 wt%
Regrind Ratio: * 5 wt%
Regrind Moisture: * .007 wt%
Calculate
907A
Predicted Effect on Intrinsic Viscosity
Click the appropriate link to view the graph
HELP?
990
a. Regrind Effect
b. Virgin Resin Intrinsic Viscosity Effect
c. Melt Temperature Effect
d. Feed Temperature Effect
e. Passes Graph
f. Regrind Moisture Effect
g. Virgin Resin Moisture Effect
960
Intrinsic Viscosity:
Intrinsic Viscosity before Pass 1: 0.000 dl/g
Passes Detail:
Passes
Intrinsic Viscosity
Pass 1 0.000
Pass 2 0.000
Pass 3 0.000
Pass 4 0.000
Pass 5 0.000
Pass 6 0.000
Click here for the Conversion Table
950
http://www.eastman.com/Wizards/IVDegradation/
Internet
Pass 7 0.000
Pass 8 0.000
999
Printer Friendly Report
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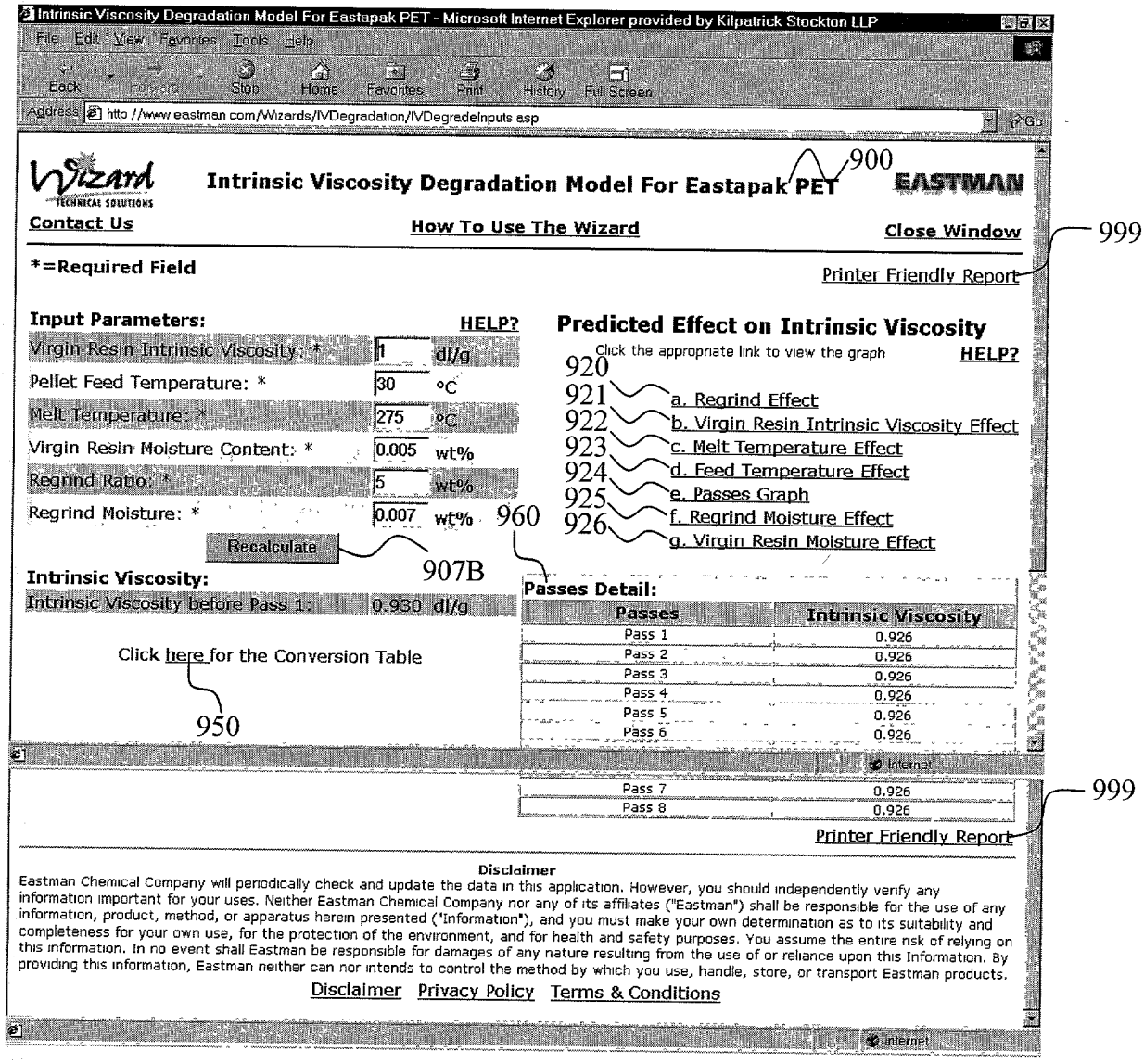
931
933
935
Internet

FIGURE 9C


Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/IVDegradation/IVDegradeInputs.asp
Wizard TECHNICAL SOLUTIONS
Intrinsic Viscosity Degradation Model For Eastapak PET
900
EASTMAN
Contact Us
How To Use The Wizard
Close Window
999
*=Required Field
Printer Friendly Report
Input Parameters:
HELP?
Virgin Resin Intrinsic Viscosity: * 1 dl/g
Pellet Feed Temperature: * 30 °C
Melt Temperature: * 275 °C
Virgin Resin Moisture Content: * 0.005 wt%
Regrind Ratio: * 5 wt%
Regrind Moisture: * 0.007 wt%
960
Recalculate
907B
Intrinsic Viscosity:
Intrinsic Viscosity before Pass 1: 0.930 dl/g
Click here for the Conversion Table
950
Predicted Effect on Intrinsic Viscosity
Click the appropriate link to view the graph
HELP?
920
921 a. Regrind Effect
922 b. Virgin Resin Intrinsic Viscosity Effect
923 c. Melt Temperature Effect
924 d. Feed Temperature Effect
925 e. Passes Graph
926 f. Regrind Moisture Effect
g. Virgin Resin Moisture Effect
Passes Detail:
Passes | Intrinsic Viscosity
Pass 1 0.926
Pass 2 0.926
Pass 3 0.926
Pass 4 0.926
Pass 5 0.926
Pass 6 0.926
Pass 7 0.926
Pass 8 0.926
999
Printer Friendly Report
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Internet

FIGURE 9D

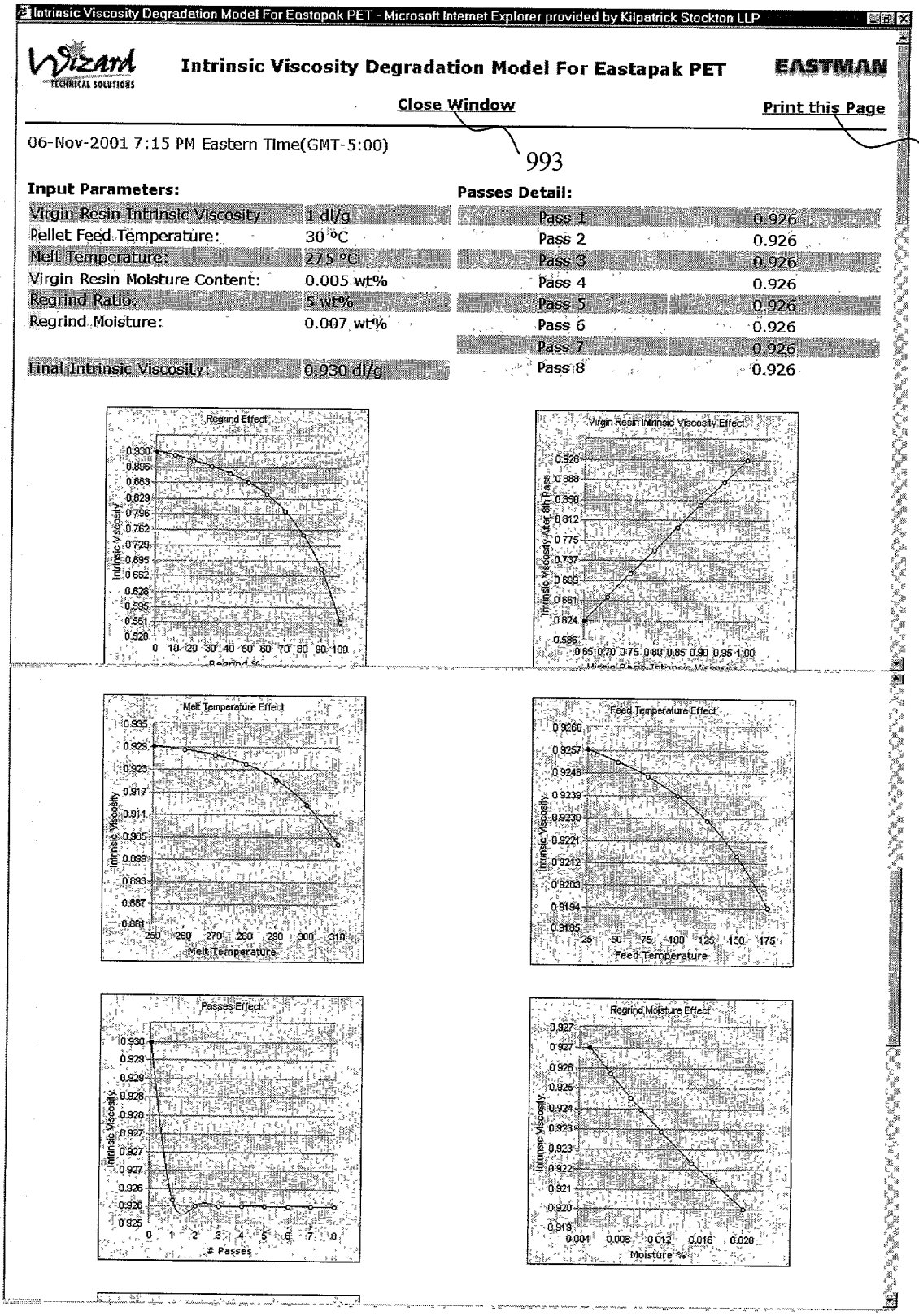

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Intrinsic Viscosity Degradation Model For Eastapak PET
EASTMAN
Close Window
Print this Page
993
940
06-Nov-2001 7:15 PM Eastern Time(GMT-5:00)
Input Parameters:
Virgin Resin Intrinsic Viscosity: 1 dl/g
Pellet Feed Temperature: 30 °C
Melt Temperature: 275 °C
Virgin Resin Moisture Content: 0.005 wt%
Regrind Ratio: 5 wt%
Regrind Moisture: 0.007 wt%
Final Intrinsic Viscosity: 0.930 dl/g
Passes Detail:
Pass 1 0.926
Pass 2 0.926
Pass 3 0.926
Pass 4 0.926
Pass 5 0.926
Pass 6 0.926
Pass 7 0.926
Pass 8 0.926
Regrind Effect
Virgin Resin Intrinsic Viscosity Effect
Melt Temperature Effect
Feed Temperature Effect
Passes Effect
Regrind Moisture Effect

FIGURE 9E

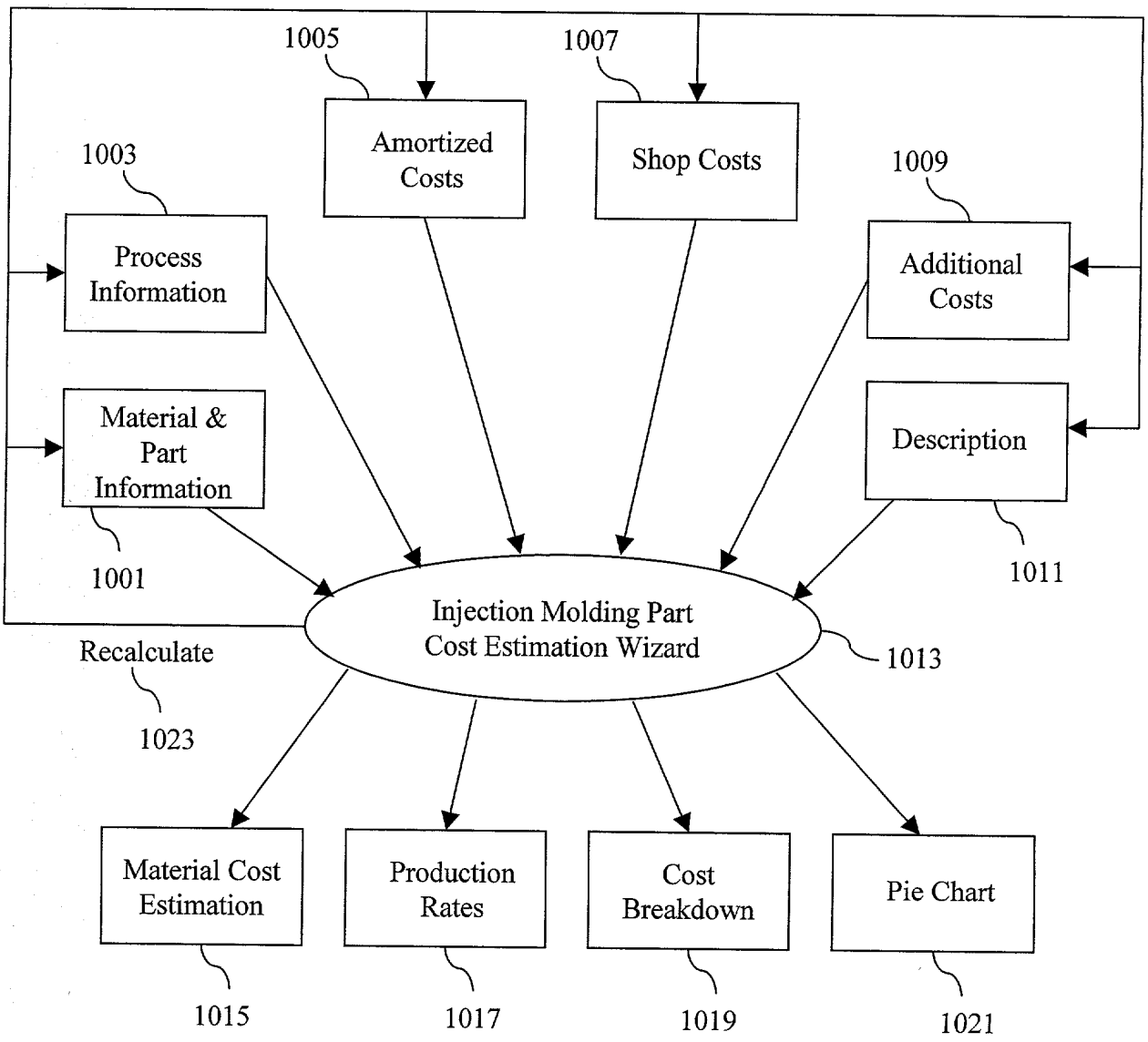

1005
1007
Amortized Costs
Shop Costs
1003
1009
Process Information
Additional Costs
Material & Part Information
Description
1001
1011
Injection Molding Part Cost Estimation Wizard
1013
Recalculate
1023
Material Cost Estimation
Production Rates
Cost Breakdown
Pie Chart
1015
1017
1019
1021

FIGURE 10A

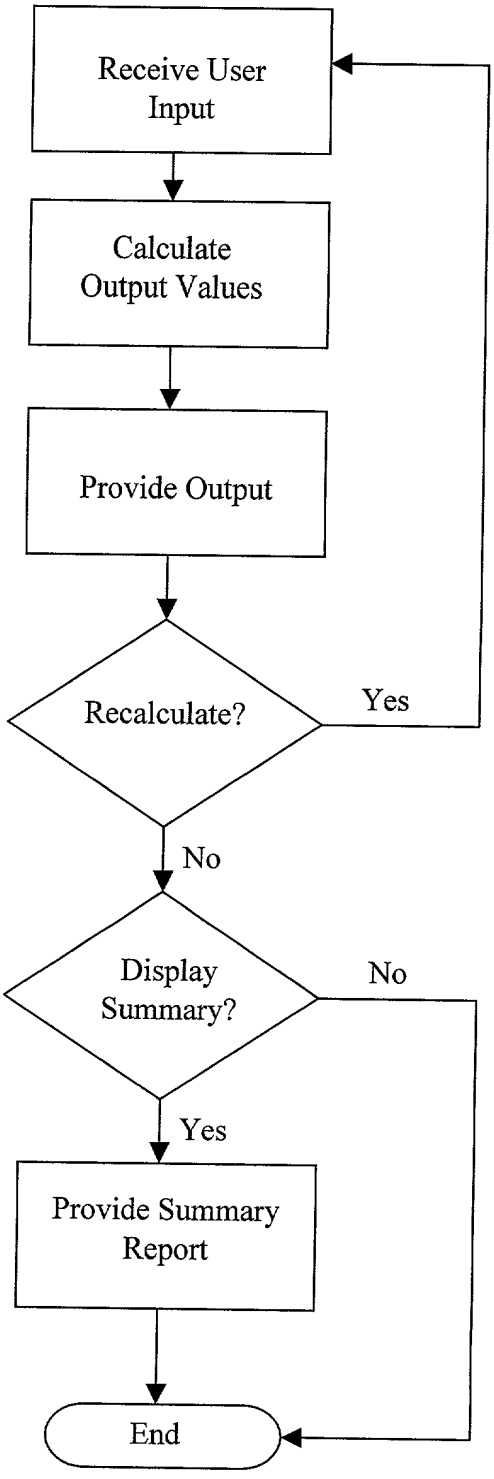

Receive User Input
Calculate Output Values
Provide Output
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 10B

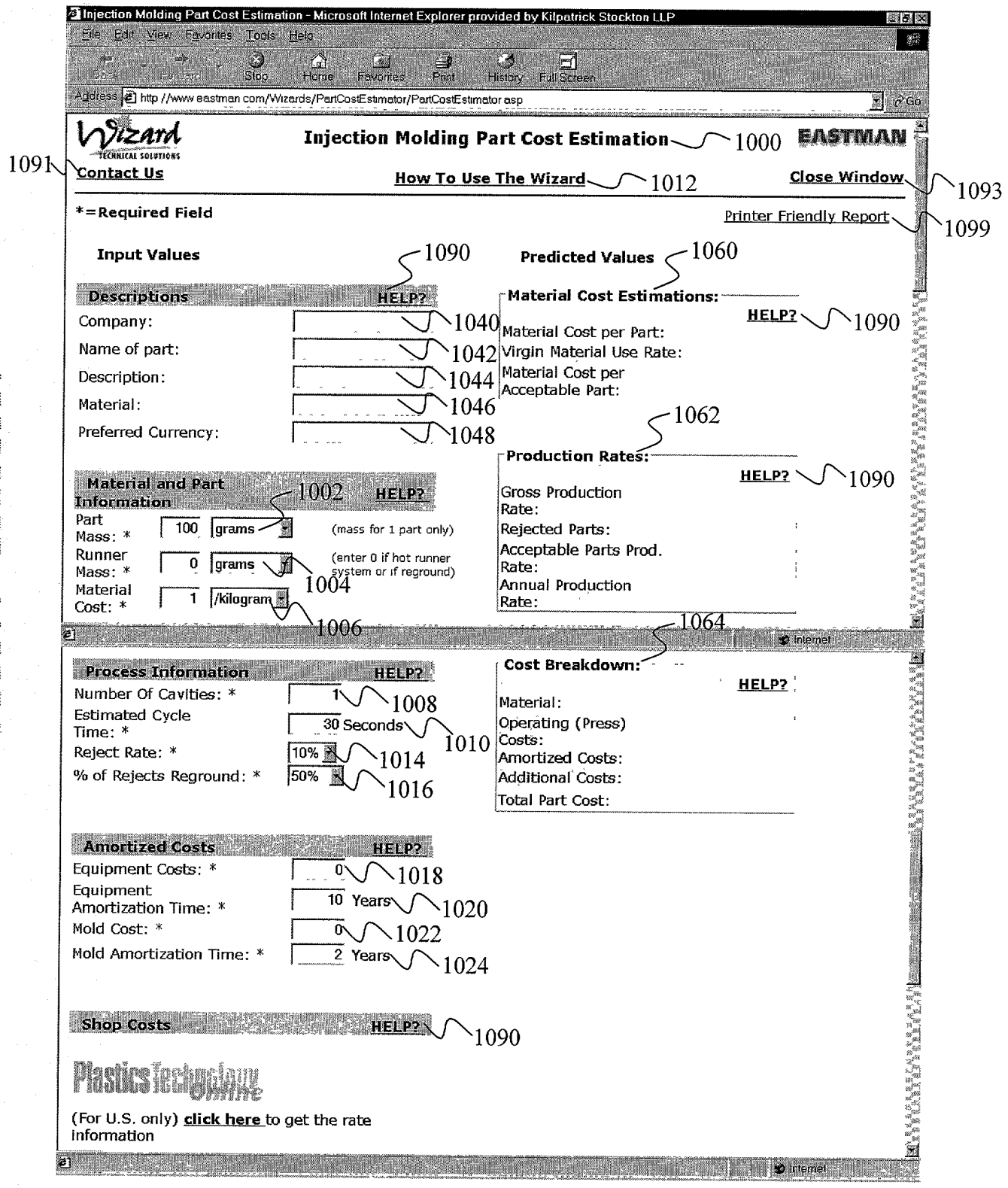
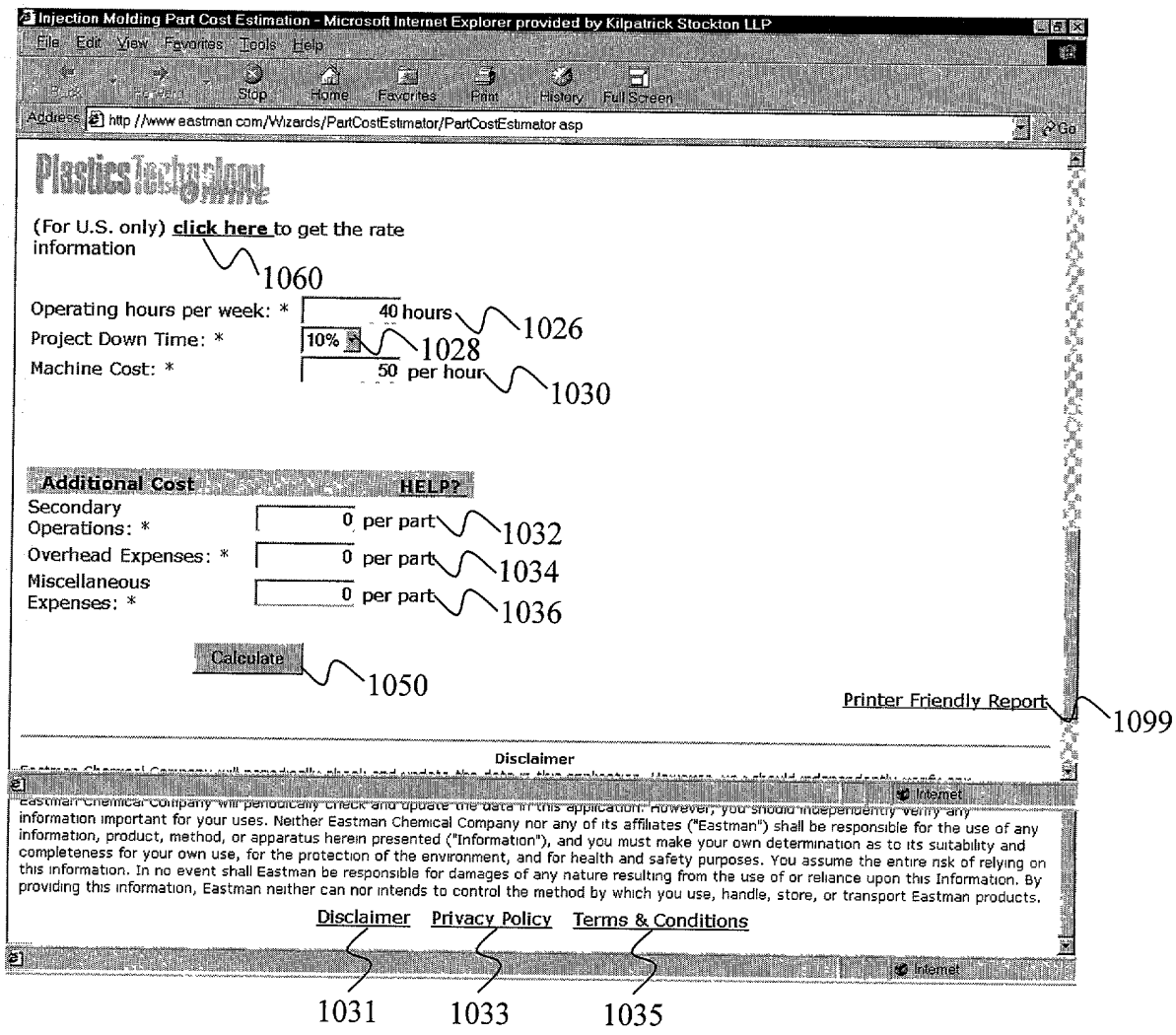

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp
Wizard TECHNICAL SOLUTIONS
Injection Molding Part Cost Estimation
1000
EASTMAN
1091
Contact Us
How To Use The Wizard
1012
Close Window
1093
*=Required Field
Printer Friendly Report
1099
Input Values
1090
Predicted Values
1060
Descriptions
HELP?
Company:
1040
Name of part:
1042
Description:
1044
Material:
1046
Preferred Currency:
1048
Material Cost Estimations:
HELP?
1090
Material Cost per Part:
Virgin Material Use Rate:
Material Cost per Acceptable Part:
1062
Production Rates:
HELP?
1090
Gross Production Rate:
Rejected Parts:
Acceptable Parts Prod. Rate:
Annual Production Rate:
Material and Part Information
1002
HELP?
Part Mass: *
100
grams
(mass for 1 part only)
Runner Mass: *
0
grams
(enter 0 if hot runner system or if reground)
1004
Material Cost: *
1
/kilogram
1006
Internet
1064
Process Information
HELP?
Number Of Cavities: *
1
1008
Estimated Cycle Time: *
30 Seconds
1010
Reject Rate: *
10%
1014
% of Rejects Reground: *
50%
1016
Cost Breakdown:
HELP?
Material:
Operating (Press) Costs:
Amortized Costs:
Additional Costs:
Total Part Cost:
Amortized Costs
HELP?
Equipment Costs: *
0
1018
Equipment Amortization Time: *
10 Years
1020
Mold Cost: *
0
1022
Mold Amortization Time: *
2 Years
1024
Shop Costs
HELP?
1090
Plastics Technology Online
(For U.S. only) click here to get the rate information
Internet

FIGURE 10C


Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp
Go
Plastics Technology Online
(For U.S. only) click here to get the rate information
1060
Operating hours per week: * 40 hours
1026
Project Down Time: * 10%
1028
Machine Cost: * 50 per hour
1030
Additional Cost
HELP?
Secondary Operations: * 0 per part
1032
Overhead Expenses: * 0 per part
1034
Miscellaneous Expenses: * 0 per part
1036
Calculate
1050
Printer Friendly Report
1099
Disclaimer
Internet
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Disclaimer
Privacy Policy
Terms & Conditions
1031
1033
1035
Internet

FIGURE 10D

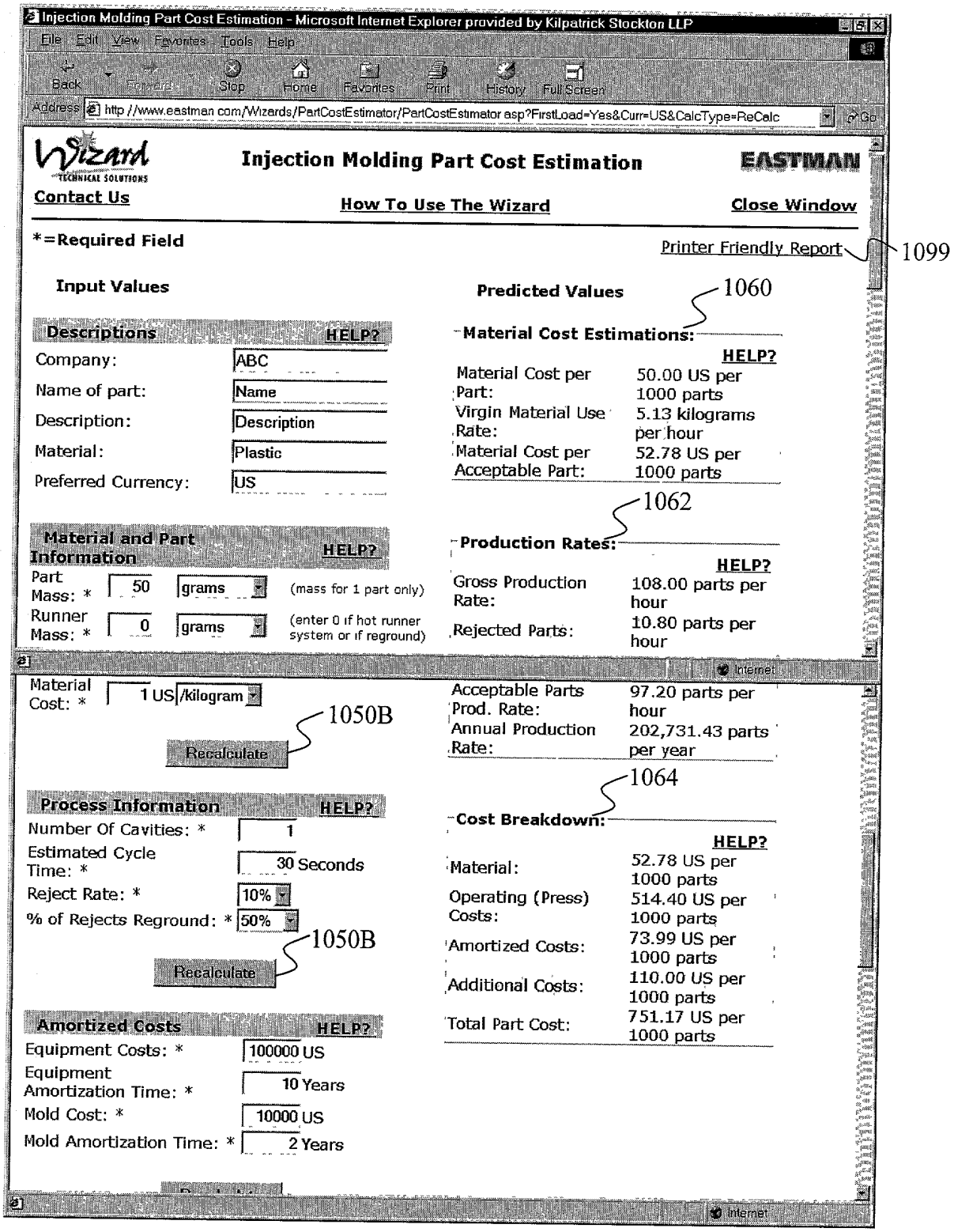
Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp?FirstLoad=Yes&Curr=US&CalcType=ReCalc
Wizard TECHNICAL SOLUTIONS
Injection Molding Part Cost Estimation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required Field
Printer Friendly Report
1099
Input Values
Predicted Values
1060
Descriptions HELP?
Company: ABC
Name of part: Name
Description: Description
Material: Plastic
Preferred Currency: US
Material Cost Estimations:
HELP?
Material Cost per Part: 50.00 US per 1000 parts
Virgin Material Use Rate: 5.13 kilograms per hour
Material Cost per Acceptable Part: 52.78 US per 1000 parts
1062
Material and Part Information HELP?
Part Mass: * 50 grams (mass for 1 part only)
Runner Mass: * 0 grams (enter 0 if hot runner system or if reground)
Production Rates:
HELP?
Gross Production Rate: 108.00 parts per hour
Rejected Parts: 10.80 parts per hour
Internet
Material Cost: * 1 US /kilogram
1050B
Recalculate
Acceptable Parts Prod. Rate: 97.20 parts per hour
Annual Production Rate: 202,731.43 parts per year
1064
Process Information HELP?
Number Of Cavities: * 1
Estimated Cycle Time: * 30 Seconds
Reject Rate: * 10%
% of Rejects Reground: * 50%
1050B
Recalculate
Cost Breakdown:
HELP?
Material: 52.78 US per 1000 parts
Operating (Press) Costs: 514.40 US per 1000 parts
Amortized Costs: 73.99 US per 1000 parts
Additional Costs: 110.00 US per 1000 parts
Total Part Cost: 751.17 US per 1000 parts
Amortized Costs HELP?
Equipment Costs: * 100000 US
Equipment Amortization Time: * 10 Years
Mold Cost: * 10000 US
Mold Amortization Time: * 2 Years
Internet

FIGURE 10E

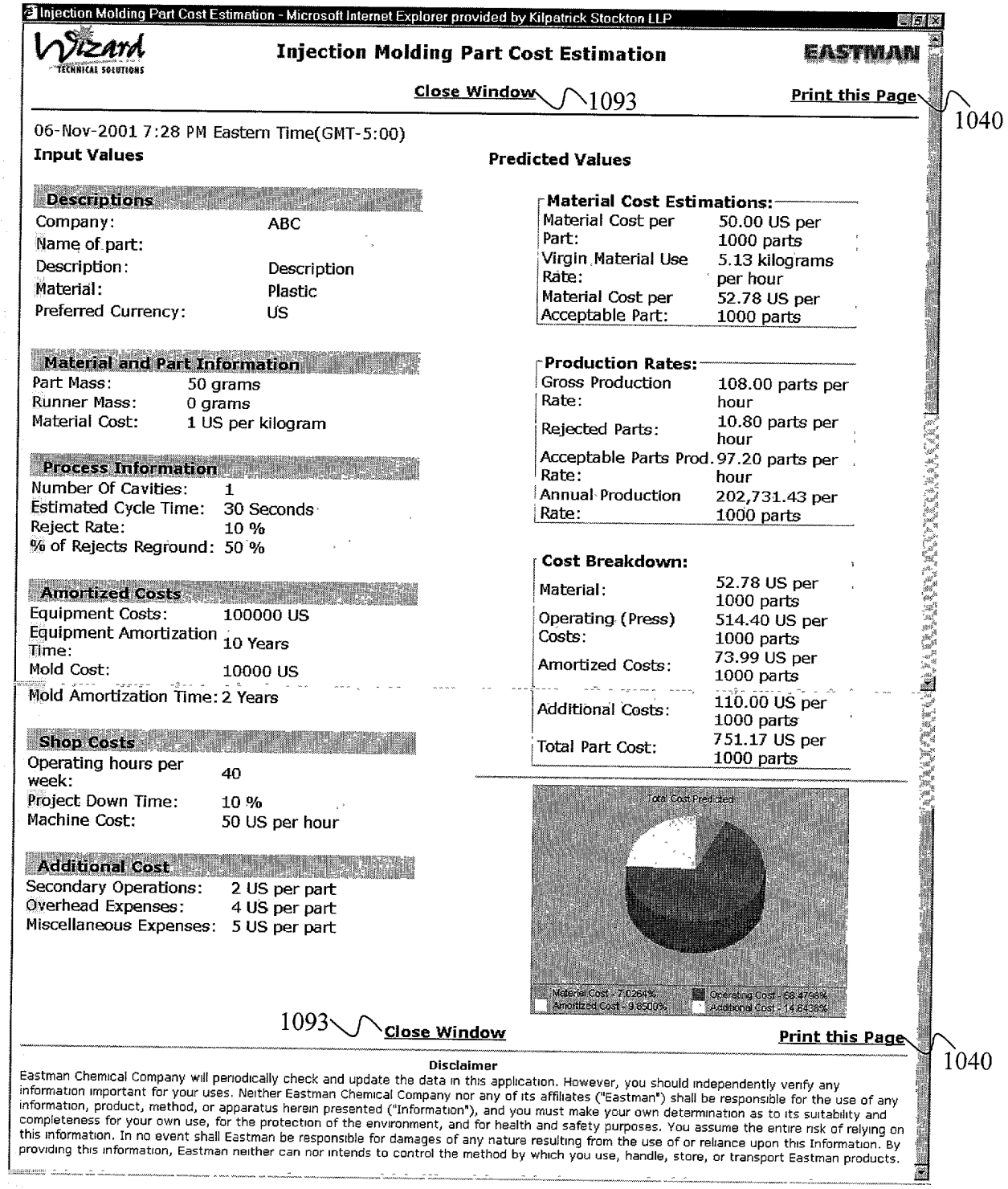
Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Wizard
TECHNICAL SOLUTIONS
Injection Molding Part Cost Estimation
EASTMAN
Close Window
1093
Print this Page
1040
06-Nov-2001 7:28 PM Eastern Time(GMT-5:00)
Input Values
Descriptions
Company: ABC
Name of part:
Description: Description
Material: Plastic
Preferred Currency: US
Material and Part Information
Part Mass: 50 grams
Runner Mass: 0 grams
Material Cost: 1 US per kilogram
Process Information
Number Of Cavities: 1
Estimated Cycle Time: 30 Seconds
Reject Rate: 10 %
% of Rejects Reground: 50 %
Amortized Costs
Equipment Costs: 100000 US
Equipment Amortization Time: 10 Years
Mold Cost: 10000 US
Mold Amortization Time: 2 Years
Shop Costs
Operating hours per week: 40
Project Down Time: 10 %
Machine Cost: 50 US per hour
Additional Cost
Secondary Operations: 2 US per part
Overhead Expenses: 4 US per part
Miscellaneous Expenses: 5 US per part
Predicted Values
Material Cost Estimations:
Material Cost per Part: 50.00 US per 1000 parts
Virgin Material Use Rate: 5.13 kilograms per hour
Material Cost per Acceptable Part: 52.78 US per 1000 parts
Production Rates:
Gross Production Rate: 108.00 parts per hour
Rejected Parts: 10.80 parts per hour
Acceptable Parts Prod. Rate: 97.20 parts per hour
Annual Production Rate: 202,731.43 per 1000 parts
Cost Breakdown:
Material: 52.78 US per 1000 parts
Operating (Press) Costs: 514.40 US per 1000 parts
Amortized Costs: 73.99 US per 1000 parts
Additional Costs: 110.00 US per 1000 parts
Total Part Cost: 751.17 US per 1000 parts
Total Cost Predicted
Material Cost - 7.0264%
Operating Cost - 68.4798%
Amortized Cost - 9.8500%
Additional Cost - 14.6438%
1093
Close Window
Print this Page
1040
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FIGURE 10F

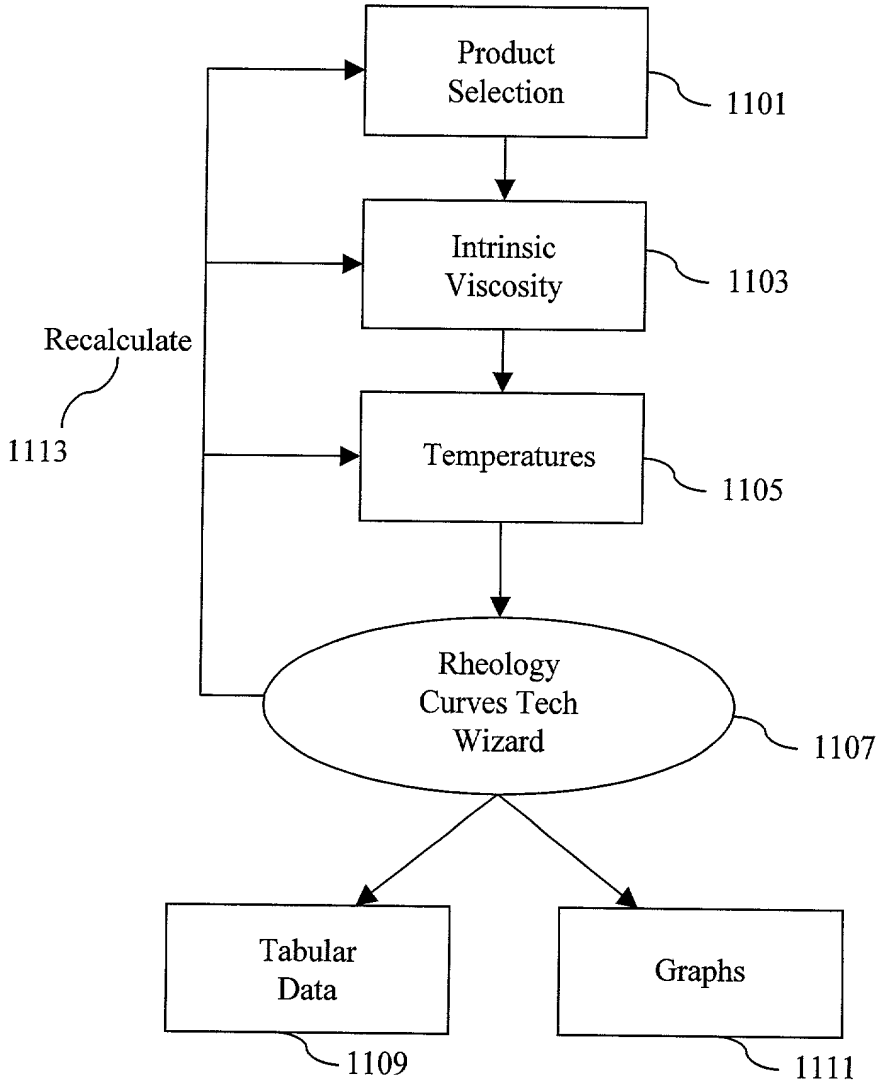

Product Selection
1101
Intrinsic Viscosity
1103
Recalculate
1113
Temperatures
1105
Rheology Curves Tech Wizard
1107
Tabular Data
1109
Graphs
1111

FIGURE 11A

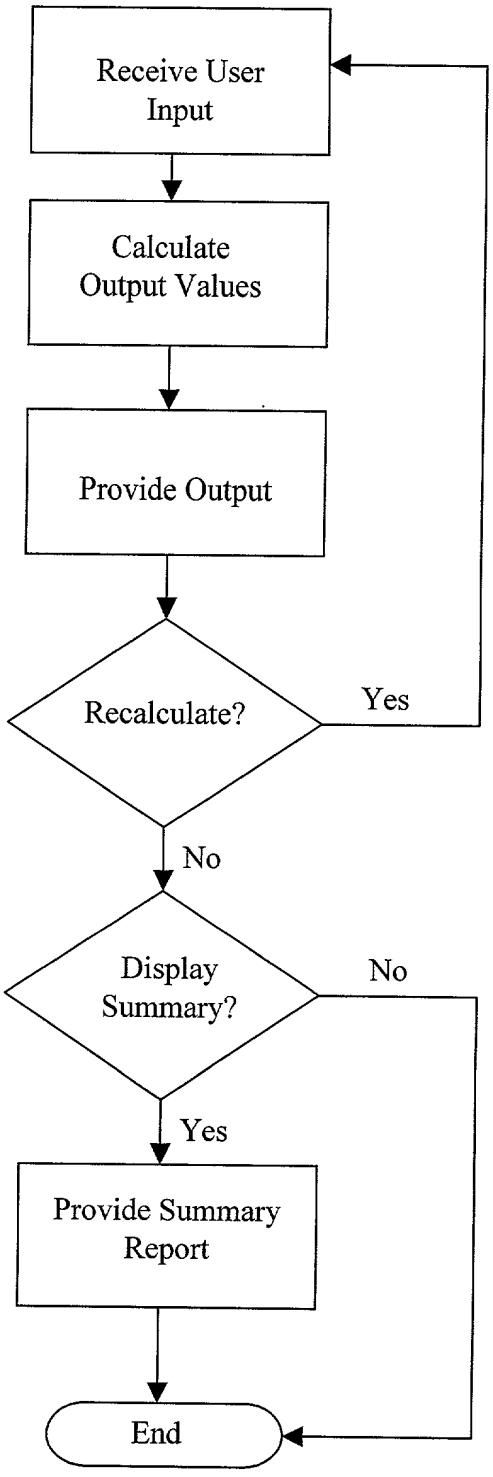
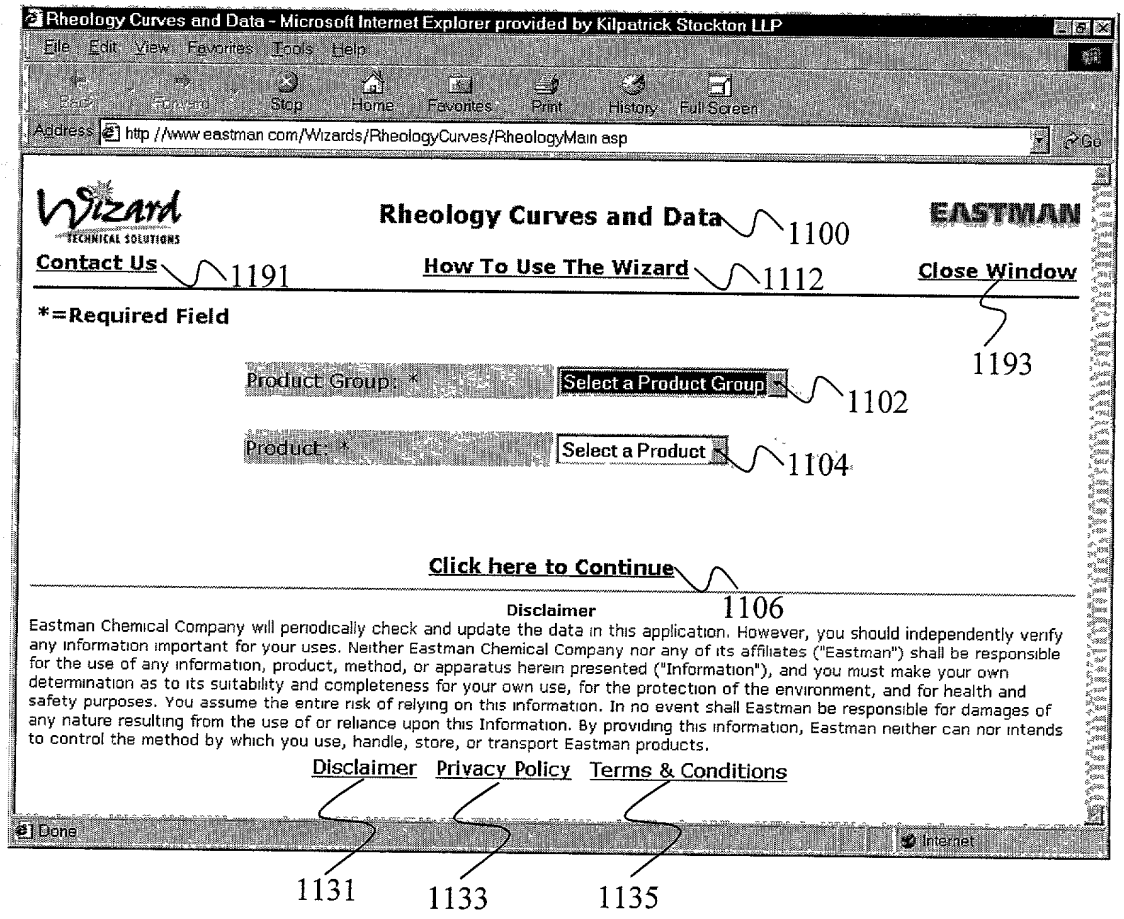

Receive User Input
Calculate Output Values
Provide Output
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 11B


Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/RheologyCurves/RheologyMain.asp
Go
Wizard TECHNICAL SOLUTIONS
Rheology Curves and Data
1100
EASTMAN
Contact Us
1191
How To Use The Wizard
1112
Close Window
1193
*=Required Field
Product Group: *
Select a Product Group
1102
Product: *
Select a Product
1104
Click here to Continue
1106
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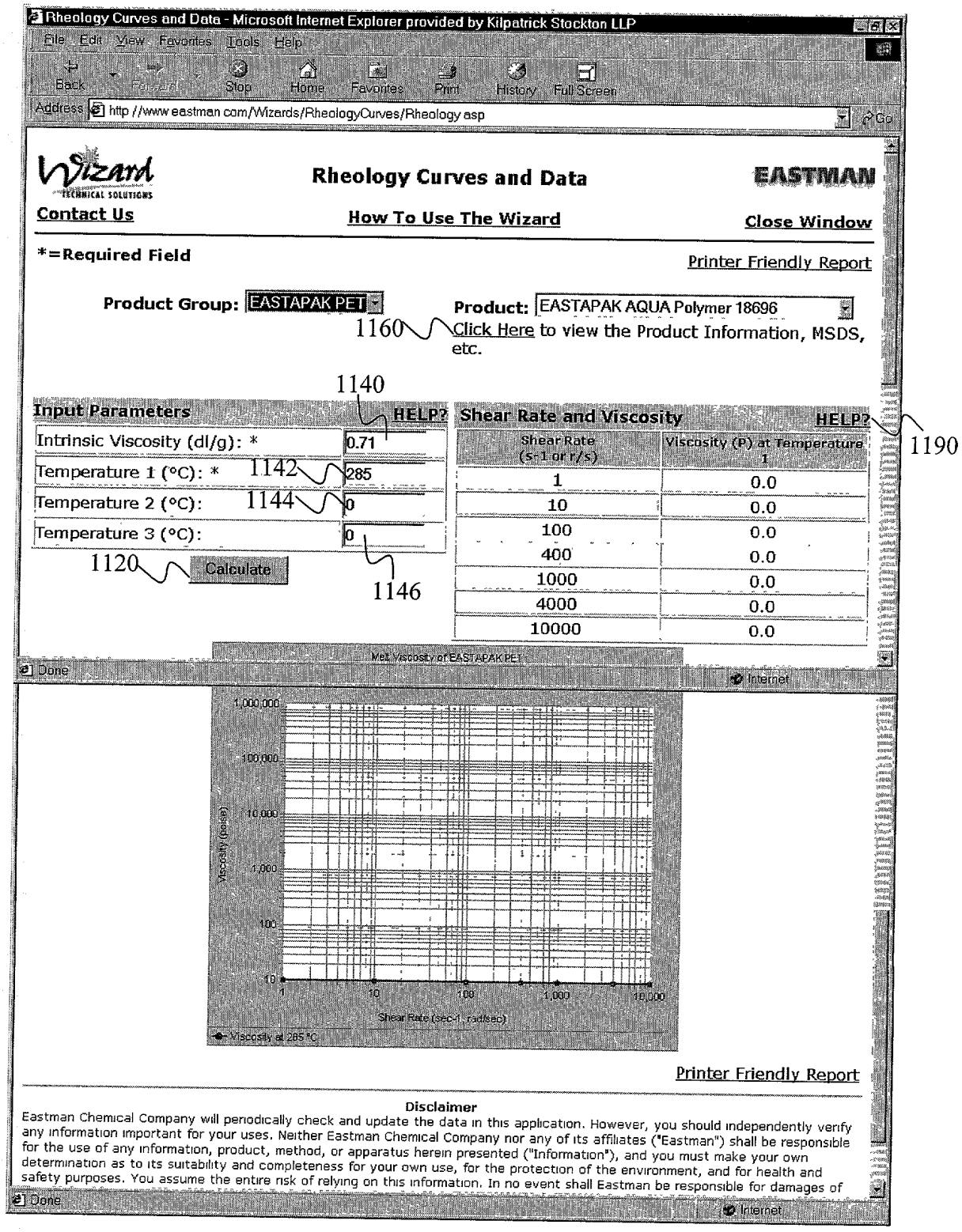
1131
1133
1135
Done
Internet

FIGURE 11C


Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/RheologyCurves/Rheology.asp
Wizard TECHNICAL SOLUTIONS
Rheology Curves and Data
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required Field
Printer Friendly Report
Product Group: EASTAPAK PET
Product: EASTAPAK AQUA Polymer 18696
1160
Click Here to view the Product Information, MSDS, etc.
1140
Input Parameters
HELP?
Intrinsic Viscosity (dl/g): *
0.71
Temperature 1 (°C): *
1142
285
Temperature 2 (°C):
1144
0
Temperature 3 (°C):
0
1120
Calculate
1146
Shear Rate and Viscosity
HELP?
1190
Shear Rate (s-1 or r/s)
Viscosity (P) at Temperature 1
1 0.0
10 0.0
100 0.0
400 0.0
1000 0.0
4000 0.0
10000 0.0
Done
Internet
Melt Viscosity of EASTAPAK PET
1,000,000
100,000
10,000
1,000
100
10
Viscosity (poise)
1
10
100
1,000
10,000
Shear Rate (sec-1 rad/sec)
Viscosity at 285 °C
Printer Friendly Report
Disclaimer
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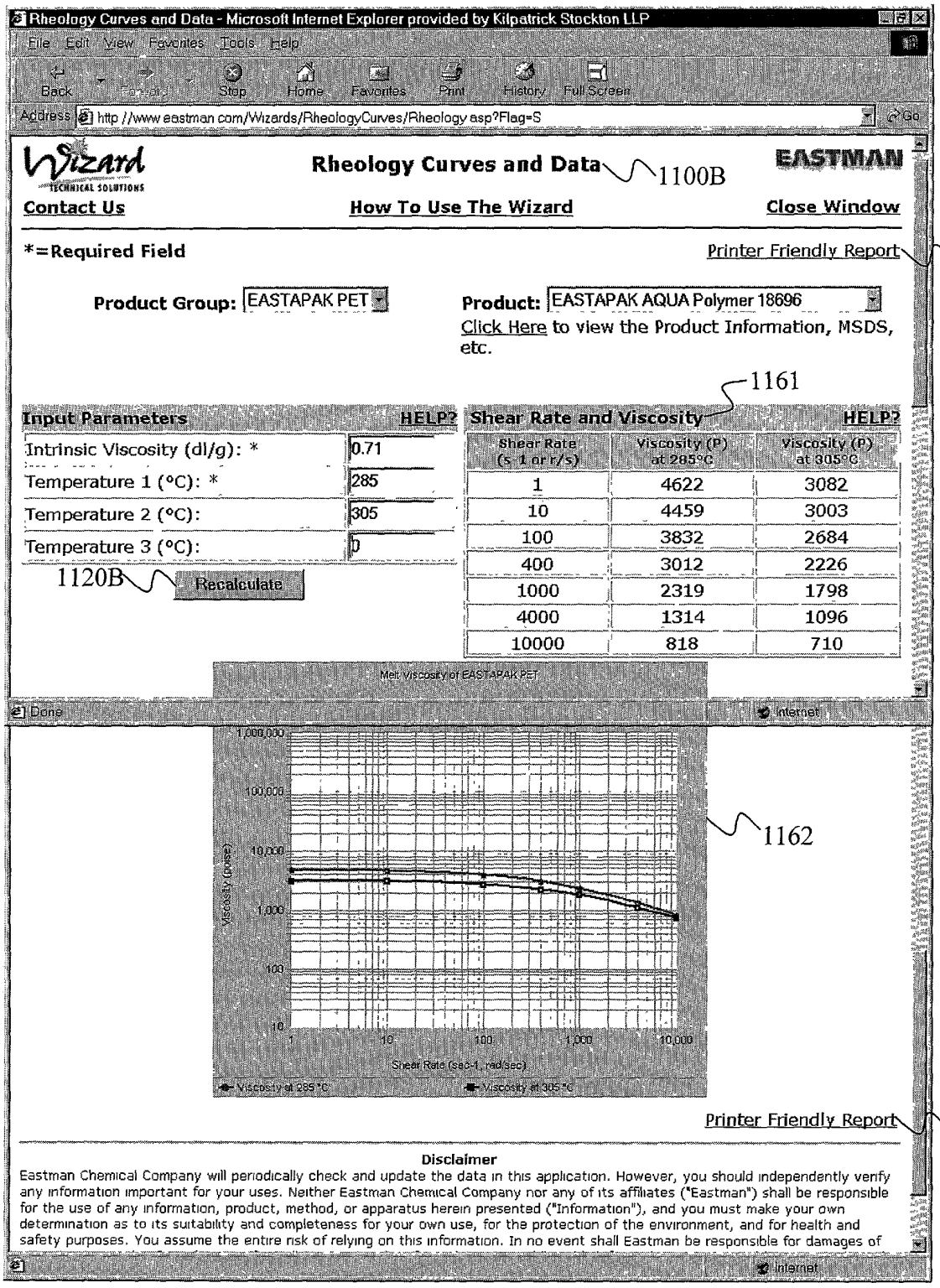
Done
Internet

FIGURE 11D


Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/RheologyCurves/Rheology.asp?Flag=S
Wizard TECHNICAL SOLUTIONS
Rheology Curves and Data
1100B
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required Field
Printer Friendly Report
1199
Product Group: EASTAPAK PET
Product: EASTAPAK AQUA Polymer 18696
Click Here to view the Product Information, MSDS, etc.
1161
Input Parameters HELP?
Intrinsic Viscosity (dl/g): * 0.71
Temperature 1 (°C): * 285
Temperature 2 (°C): 305
Temperature 3 (°C): 0
1120B
Recalculate
Shear Rate and Viscosity HELP?
Shear Rate (s-1 or r/s)
Viscosity (P) at 285°C
Viscosity (P) at 305°C
1 4622 3082
10 4459 3003
100 3832 2684
400 3012 2226
1000 2319 1798
4000 1314 1096
10000 818 710
Melt Viscosity of EASTAPAK PET
Done
Internet
1,000,000
100,000
10,000
1,000
100
10
Viscosity (poise)
1
10
100
1,000
10,000
Shear Rate (sec-1, rad/sec)
Viscosity at 285°C
Viscosity at 305°C
1162
Printer Friendly Report
1199
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Internet

FIGURE 11E

Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Wizard TECHNICAL SOLUTIONS

Rheology Curves and Data

EASTMAN

Close Window 1193 Print this Page 1140

06-Nov-2001 7:34 PM Eastern Time(GMT-5:00)

EASTAPAK PET - EASTAPAK AQUA Polymer 18696

Input Parameters	
Intrinsic Viscosity (dl/g):	0.71
Temperature 1 (°C):	285
Temperature 2 (°C):	305
Temperature 3 (°C):	0

Shear Rate and Viscosity

Shear Rate (S-1 or r/s)	Viscosity (P) at 285°C	Viscosity (P) at 305°C
1	4622	3082
10	4459	3003
100	3832	2684
400	3012	2226
1000	2319	1798
4000	1314	1096
10000	818	710

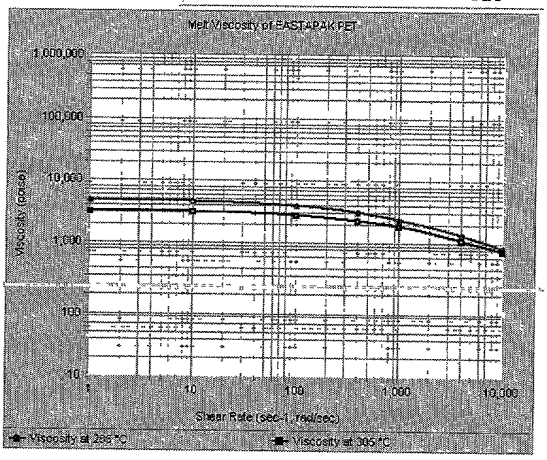

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FIGURE 11F

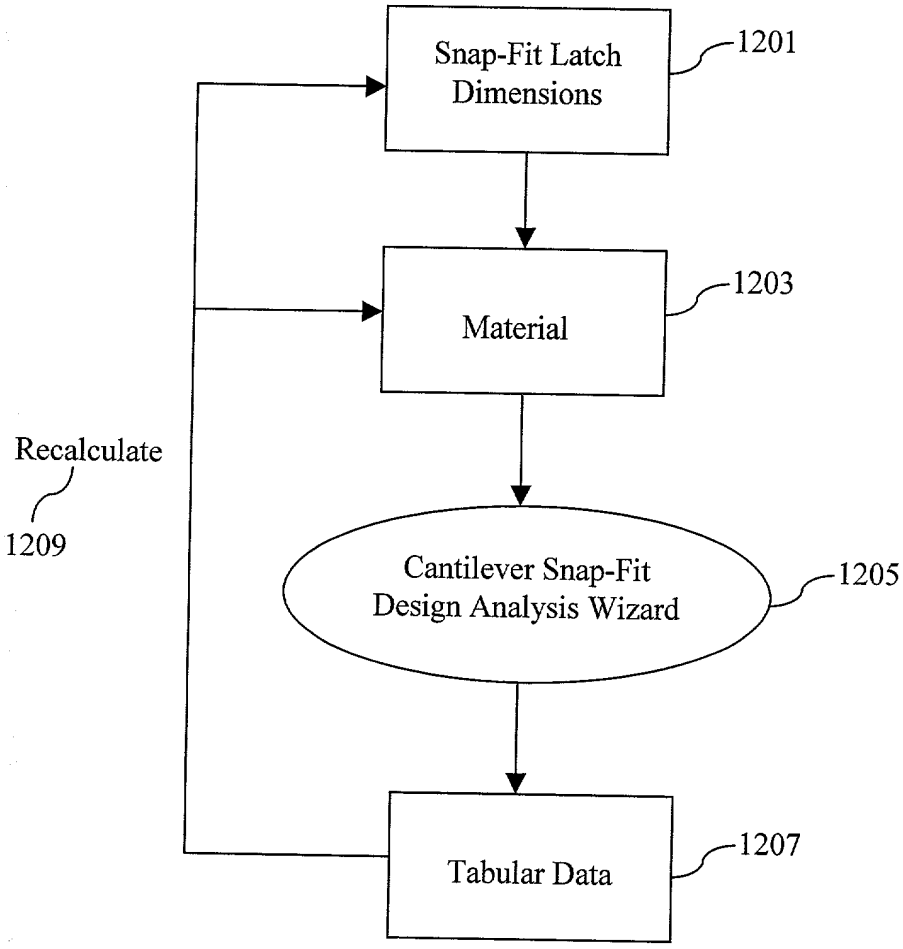

Snap-Fit Latch Dimensions
1201
Material
1203
Recalculate
1209
Cantilever Snap-Fit Design Analysis Wizard
1205
Tabular Data
1207

FIGURE 12A

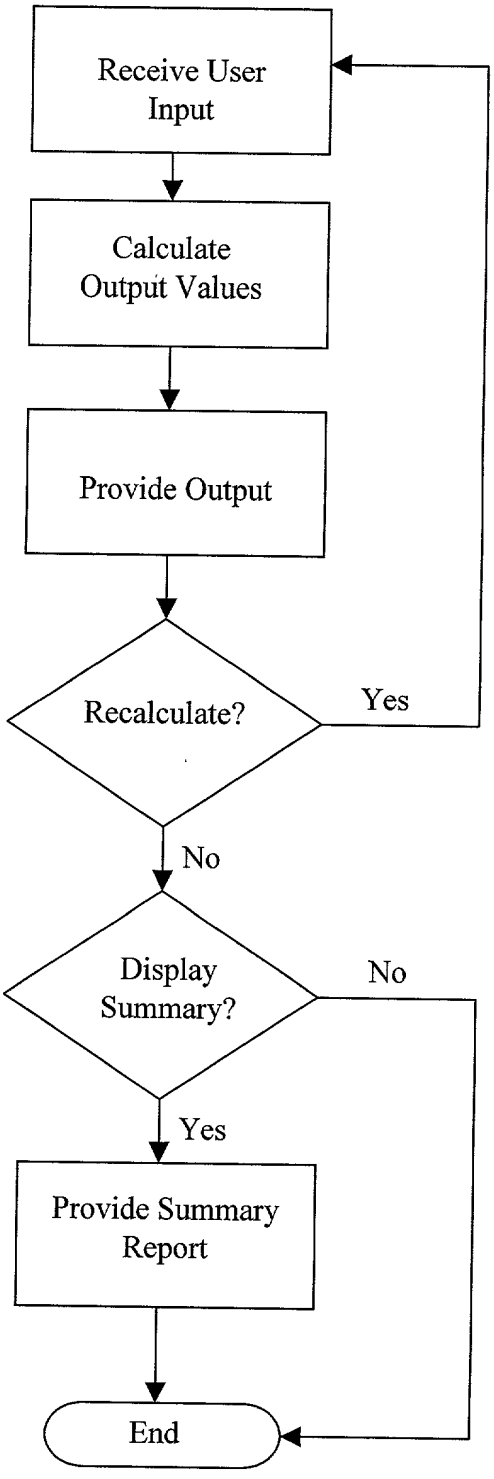
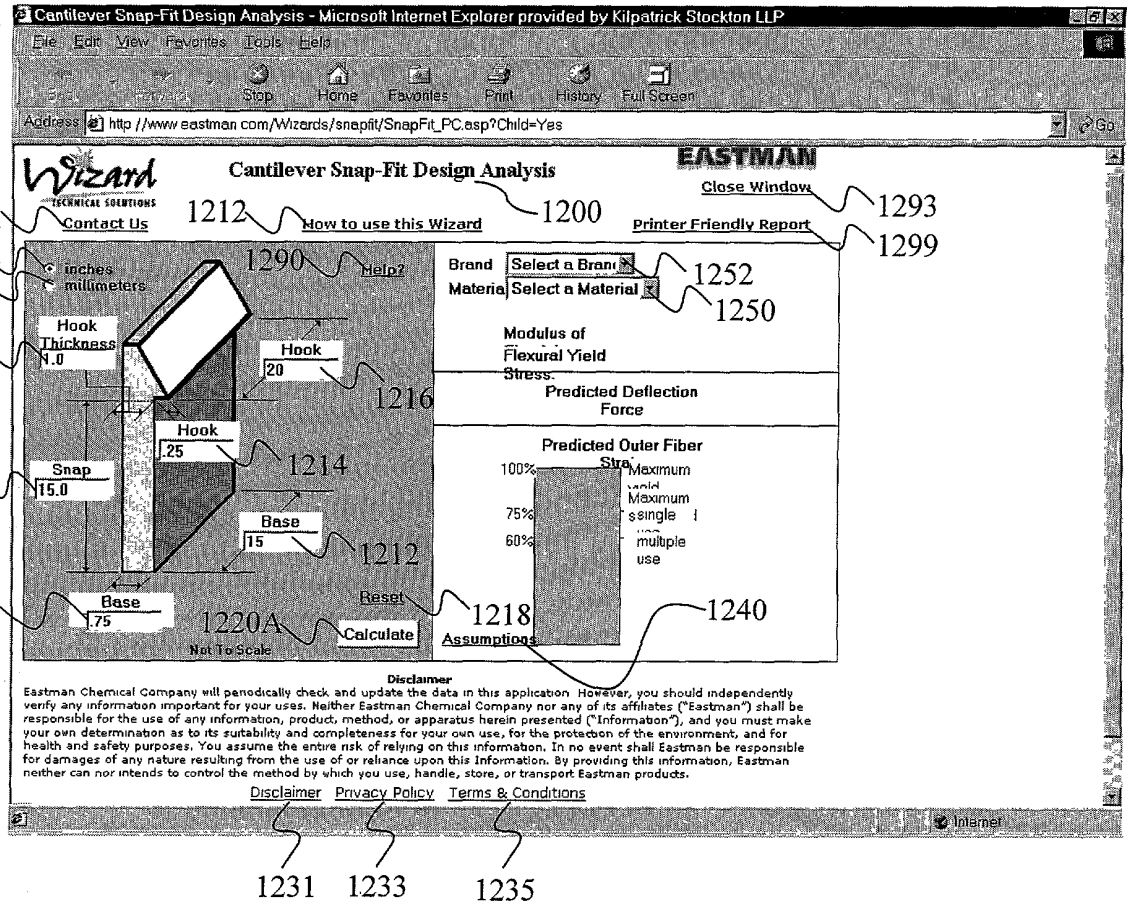

Receive User Input
Calculate Output Values
Provide Output
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 12B


Cantilever Snap-Fit Design Analysis - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/snapfit/SnapFit_PC.asp?Child=Yes
Wizard TECHNICAL SOLUTIONS
Cantilever Snap-Fit Design Analysis
EASTMAN
Close Window
Contact Us
How to use this Wizard
Printer Friendly Report
inches
millimeters
Help?
Brand Select a Brand
Material Select a Material
Hook Thickness 1.0
Hook 20
Hook .25
Snap 15.0
Base 15
Base .75
Modulus of Flexural Yield Stress
Predicted Deflection Force
Predicted Outer Fiber Stress
100%
75%
60%
Maximum
Maximum
single use
multiple use
Reset
Calculate
Assumptions
Not To Scale
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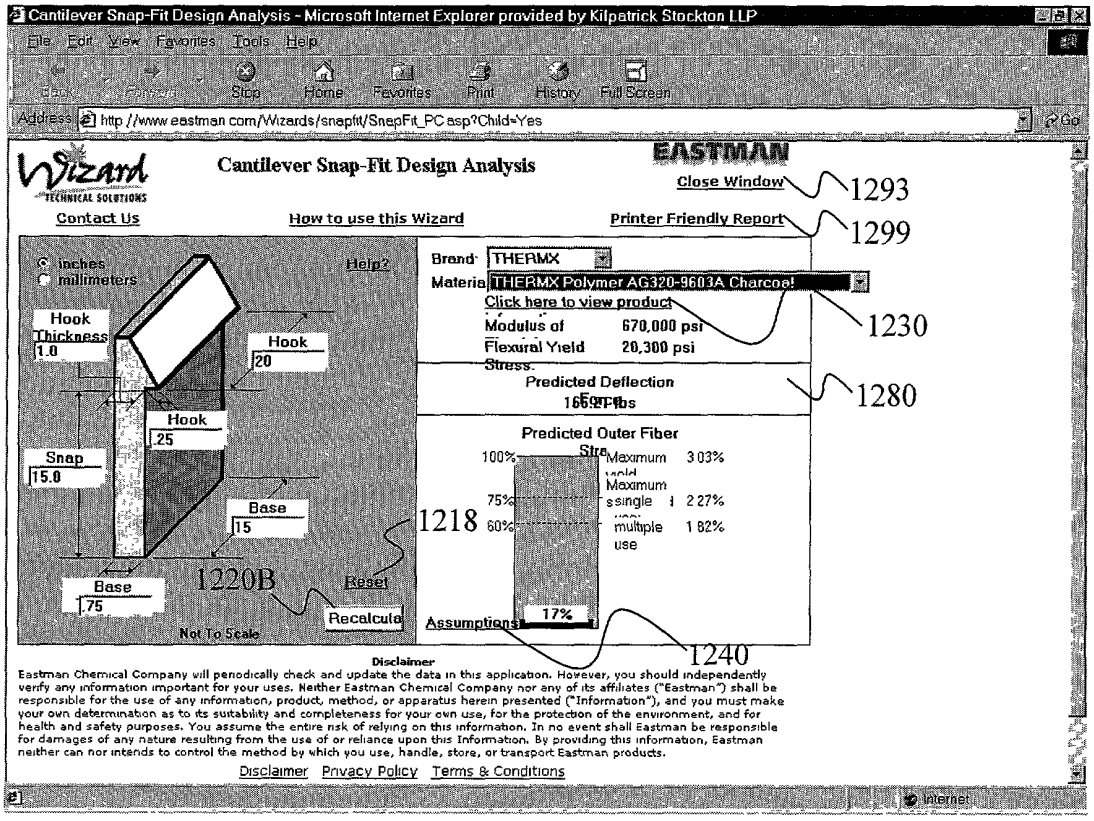
Internet
1291
1212
1200
1293
1299
1202
1204
1290
1252
1250
1206
1216
1214
1208
1212
1210
1220A
1218
1240
1231
1233
1235

FIGURE 12C


Cantilever Snap-Fit Design Analysis - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Cantilever Snap-Fit Design Analysis
EASTMAN
Close Window
1293
Contact Us
How to use this Wizard
Printer Friendly Report
1299
inches
millimeters
Help?
Hook Thickness 1.0
Hook .20
Hook .25
Snap 15.0
Base .15
Base .75
1220B
Reset
Recalcula
Not To Scale
Brand: THERMX
Materia THERMX Polymer AG320-9603A Charcoal
Click here to view product
1230
Modulus of 670,000 psi
Flexural Yield 20,300 psi
Stress:
Predicted Deflection
1280
Predicted Outer Fiber
100%
75%
60%
1218
Maximum 3.03%
Maximum single 2.27%
multiple use 1.82%
Assumptions
17%
1240
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Internet

FIGURE 12D

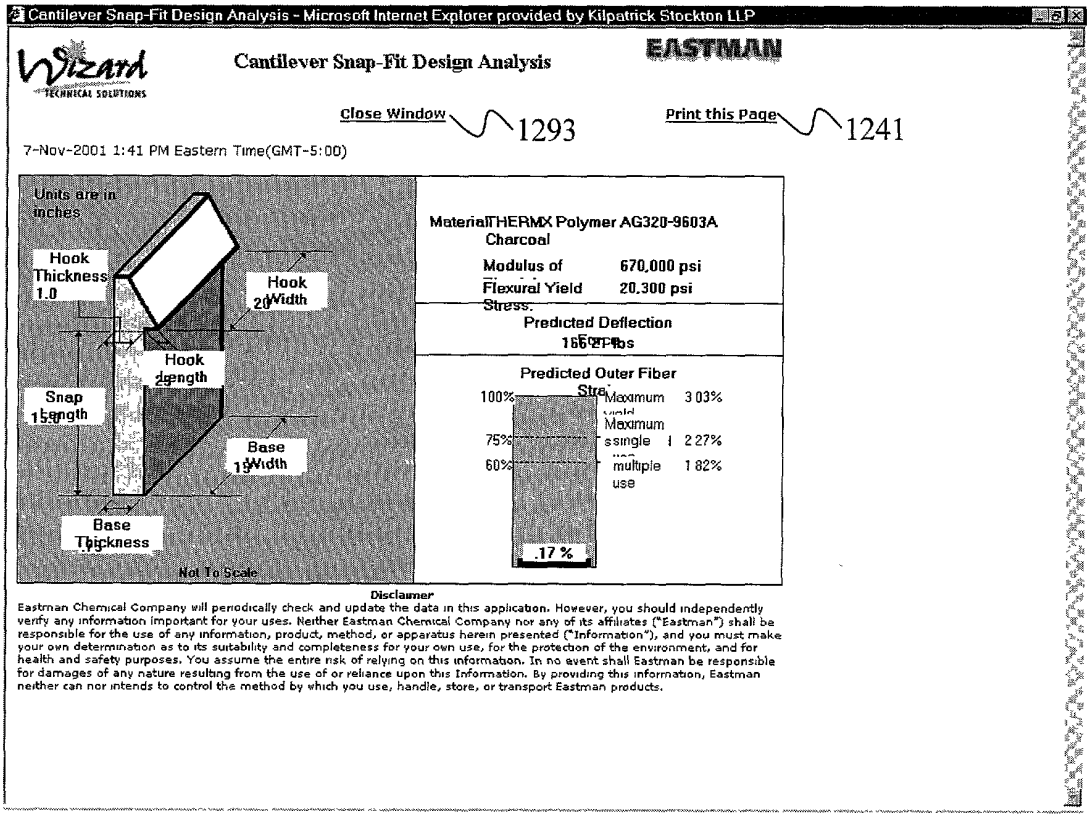
Cantilever Snap-Fit Design Analysis - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Wizard
TECHNICAL SOLUTIONS
Cantilever Snap-Fit Design Analysis
EASTMAN
Close Window
1293
Print this Page
1241
7-Nov-2001 1:41 PM Eastern Time(GMT-5:00)
Units are in inches
Hook Thickness 1.0
Hook Width 20
Hook Length
Snap Length 1.50
Base Width 1.5
Base Thickness
Not To Scale
Material THERMX Polymer AG320-9603A Charcoal
Modulus of Flexural Yield Stress: 670,000 psi 20,300 psi
Predicted Deflection
Predicted Outer Fiber Stress
100%
75%
60%
Maximum
Maximum
single
multiple use
3.03%
2.27%
1.82%
.17 %
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FIGURE 12E

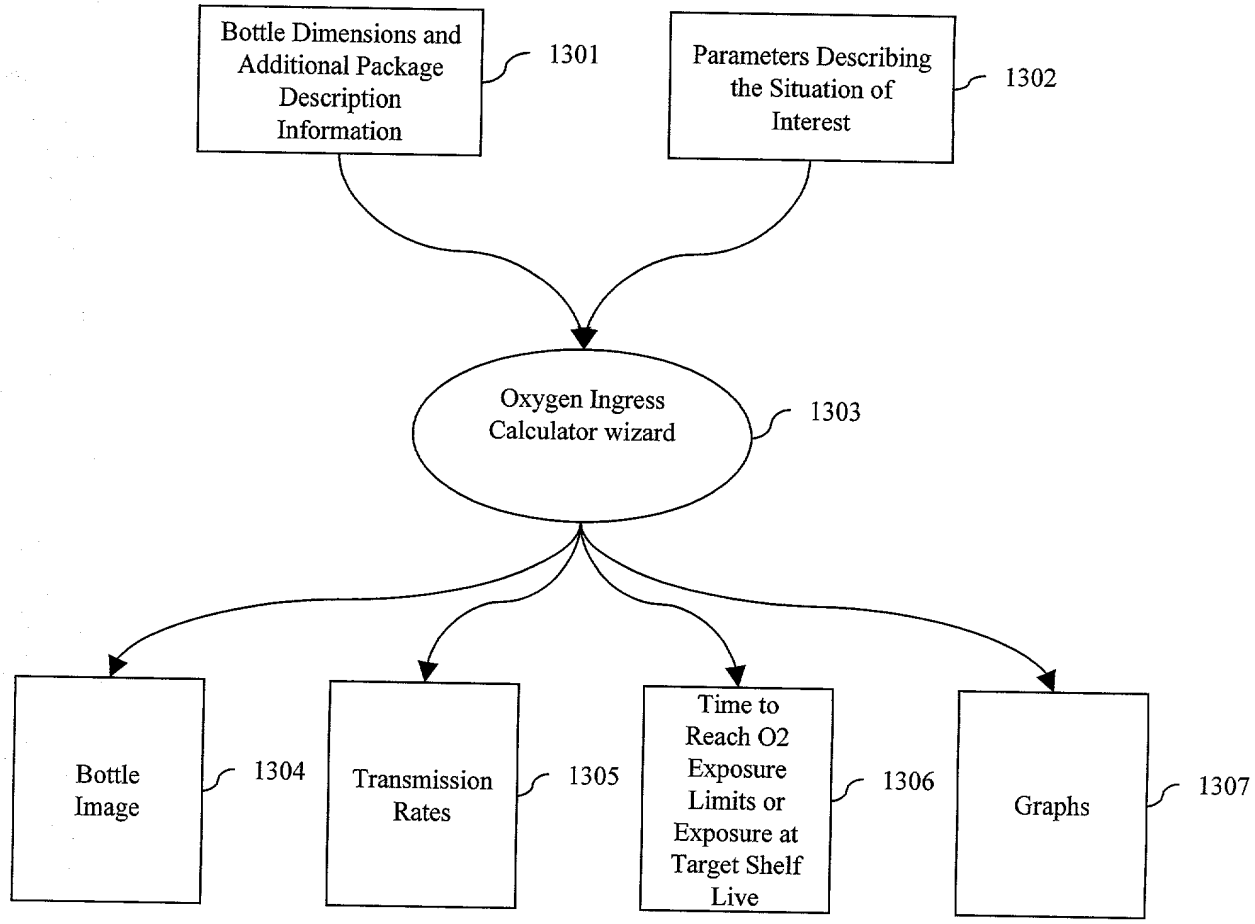

Bottle Dimensions and Additional Package Description Information
1301
Parameters Describing the Situation of Interest
1302
Oxygen Ingress Calculator wizard
1303
Bottle Image
1304
Transmission Rates
1305
Time to Reach O2 Exposure Limits or Exposure at Target Shelf Live
1306
Graphs
1307

FIG. 13A

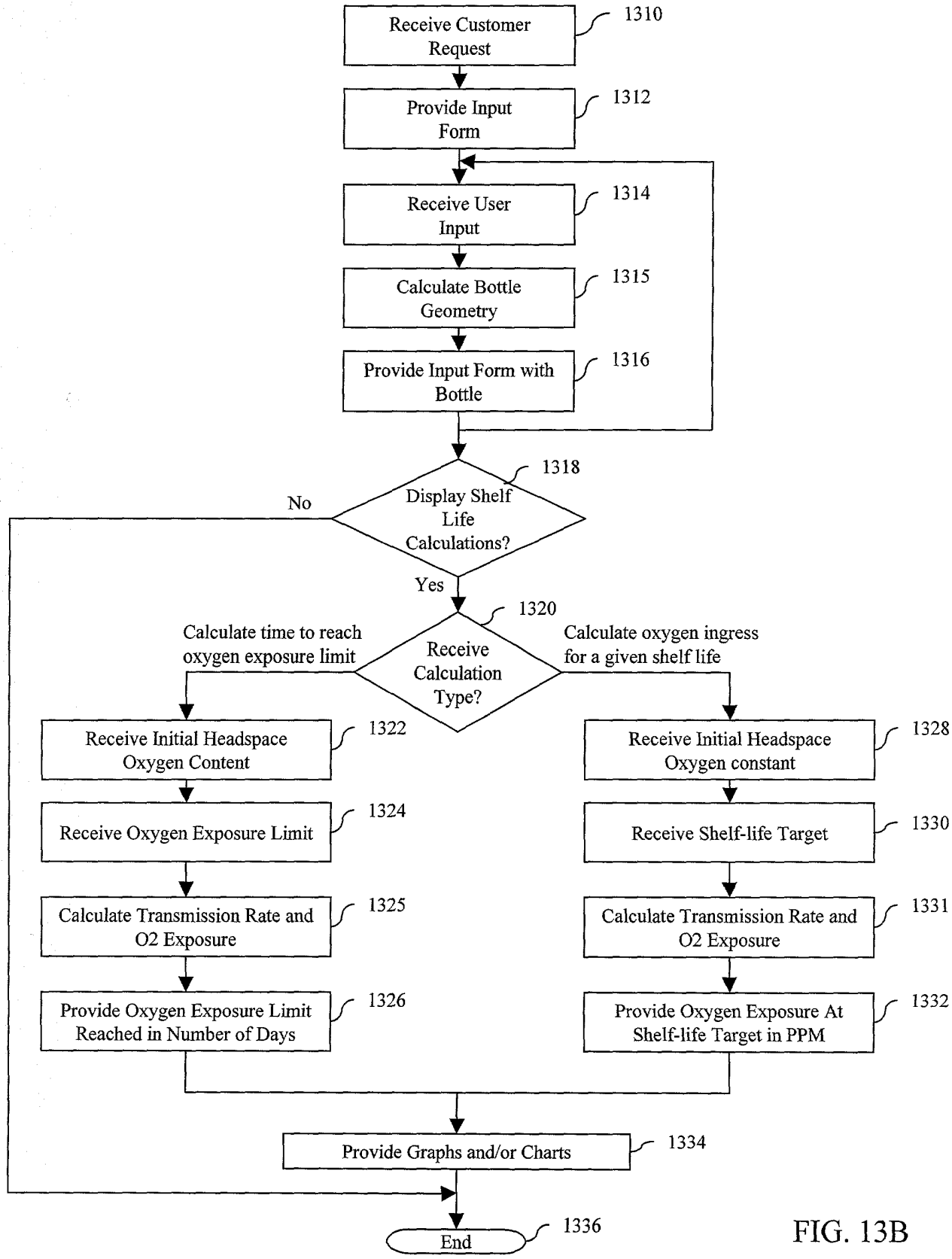

Receive Customer Request
1310
Provide Input Form
1312
Receive User Input
1314
Calculate Bottle Geometry
1315
Provide Input Form with Bottle
1316
Display Shelf Life Calculations?
1318
No
Yes
Receive Calculation Type?
1320
Calculate time to reach oxygen exposure limit
Calculate oxygen ingress for a given shelf life
Receive Initial Headspace Oxygen Content
1322
Receive Oxygen Exposure Limit
1324
Calculate Transmission Rate and O2 Exposure
1325
Provide Oxygen Exposure Limit Reached in Number of Days
1326
Receive Initial Headspace Oxygen constant
1328
Receive Shelf-life Target
1330
Calculate Transmission Rate and O2 Exposure
1331
Provide Oxygen Exposure At Shelf-life Target in PPM
1332
Provide Graphs and/or Charts
1334
End
1336

FIG. 13B

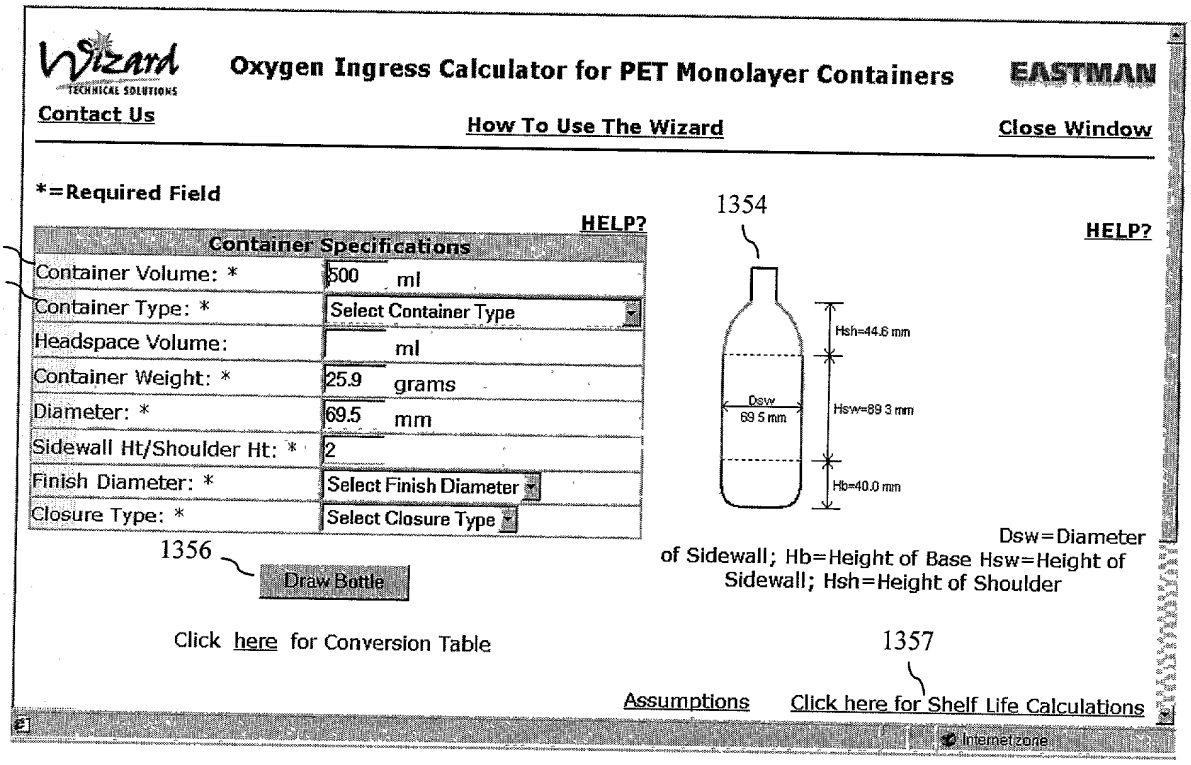


FIG. 13C

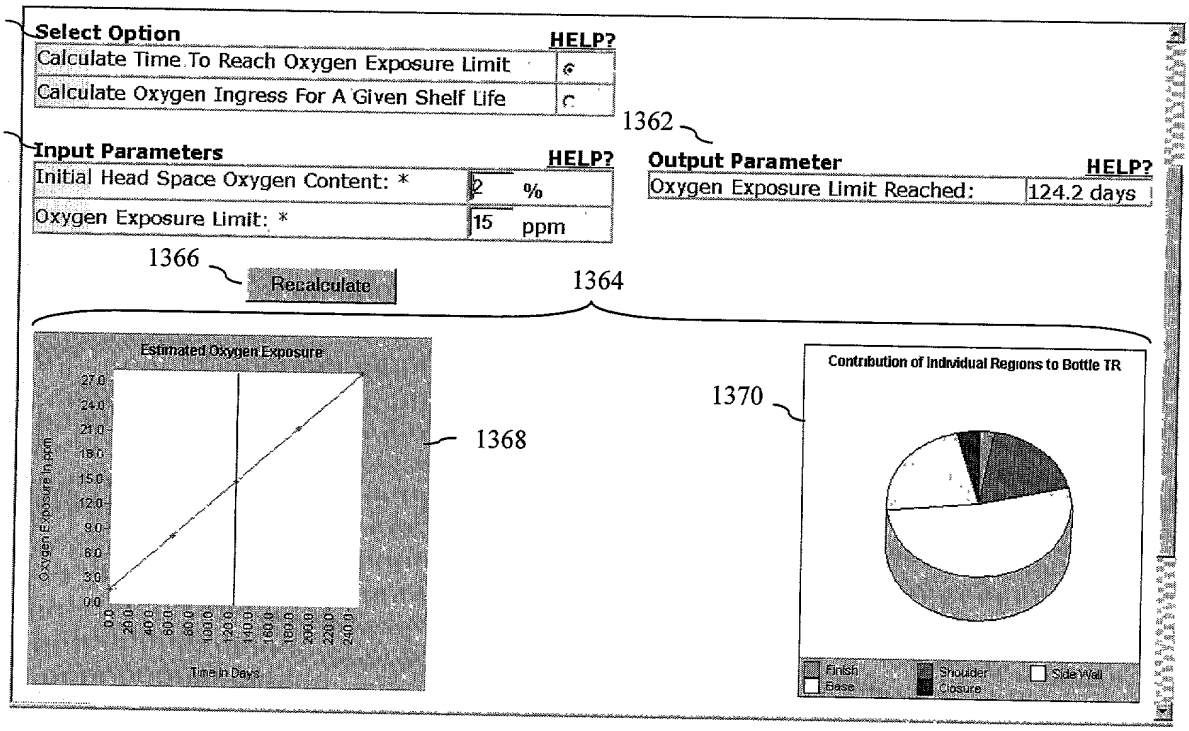


FIG. 13D

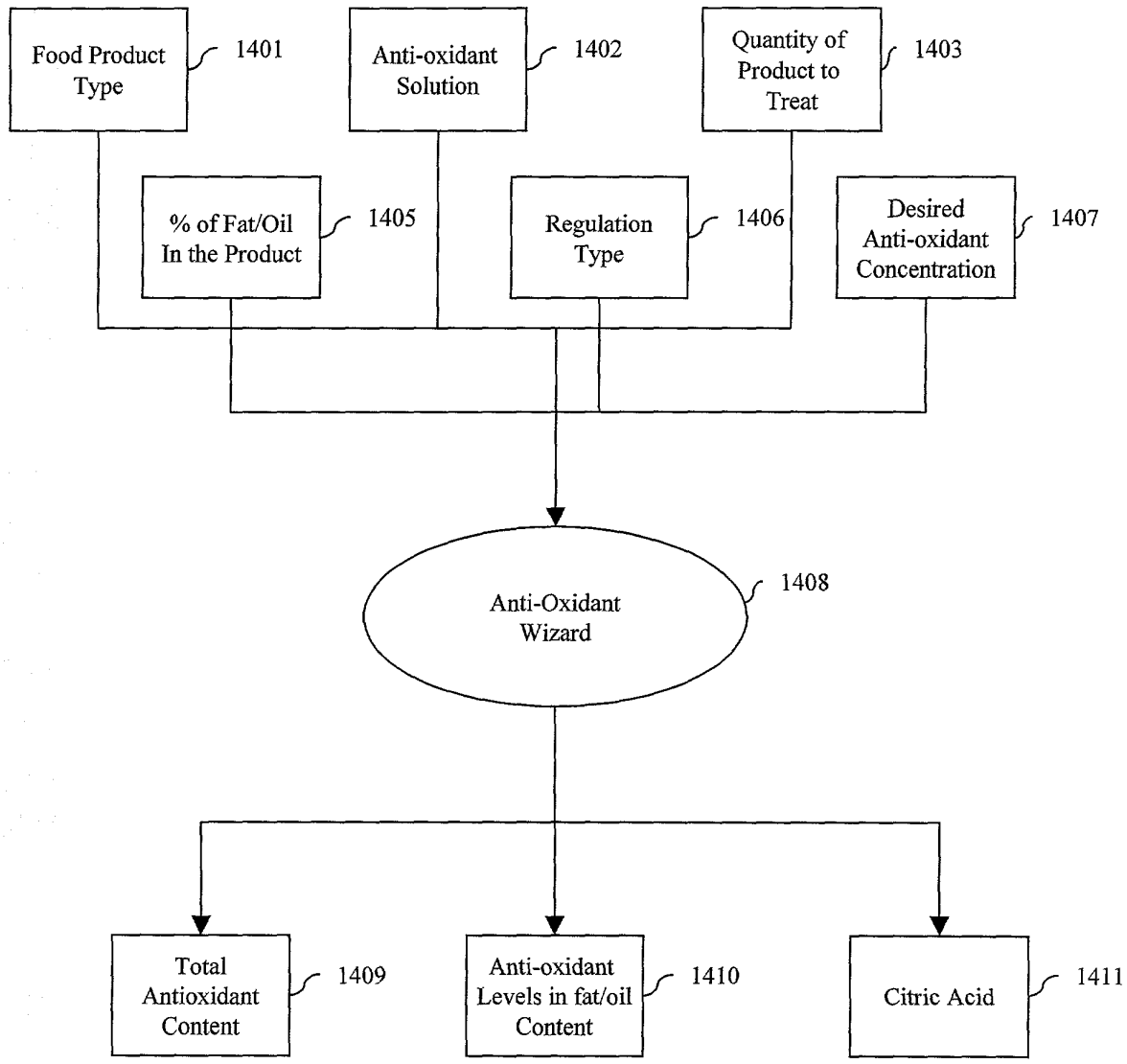

Food Product Type
1401
Anti-oxidant Solution
1402
Quantity of Product to Treat
1403
% of Fat/Oil In the Product
1405
Regulation Type
1406
Desired Anti-oxidant Concentration
1407
Anti-Oxidant Wizard
1408
Total Antioxidant Content
1409
Anti-oxidant Levels in fat/oil Content
1410
Citric Acid
1411

FIG. 14A

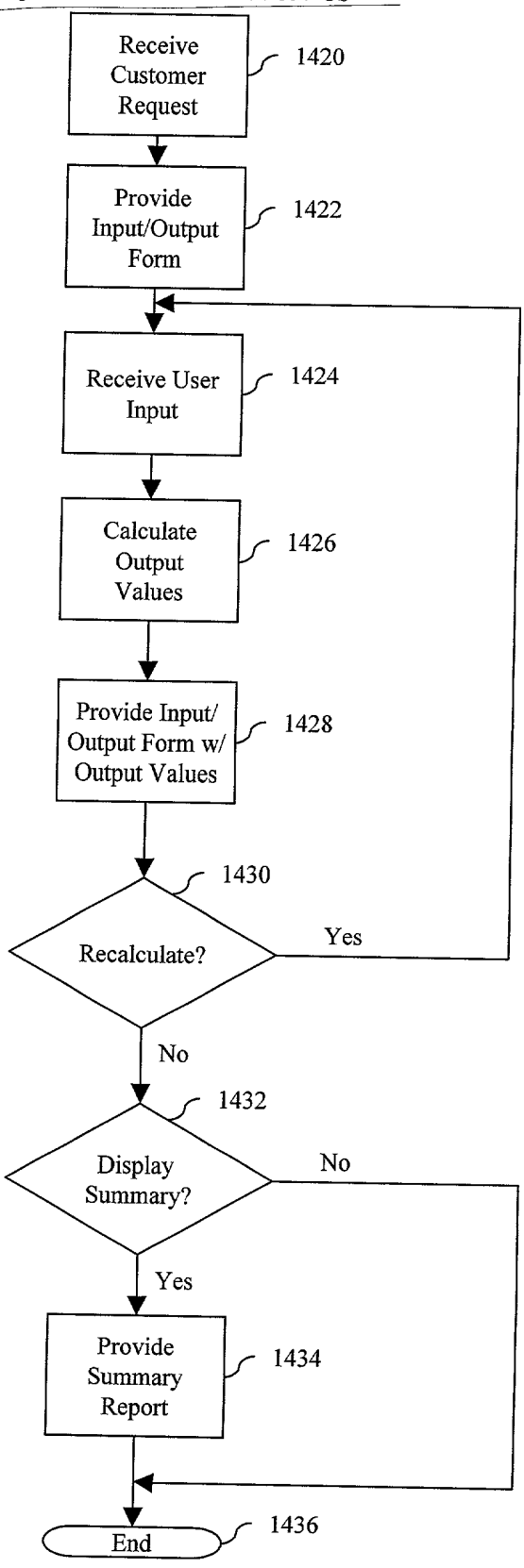

Receive Customer Request
1420
Provide Input/Output Form
1422
Receive User Input
1424
Calculate Output Values
1426
Provide Input/ Output Form w/ Output Values
1428
1430
Recalculate?
Yes
No
1432
Display Summary?
No
Yes
Provide Summary Report
1434
End
1436

FIG. 14B

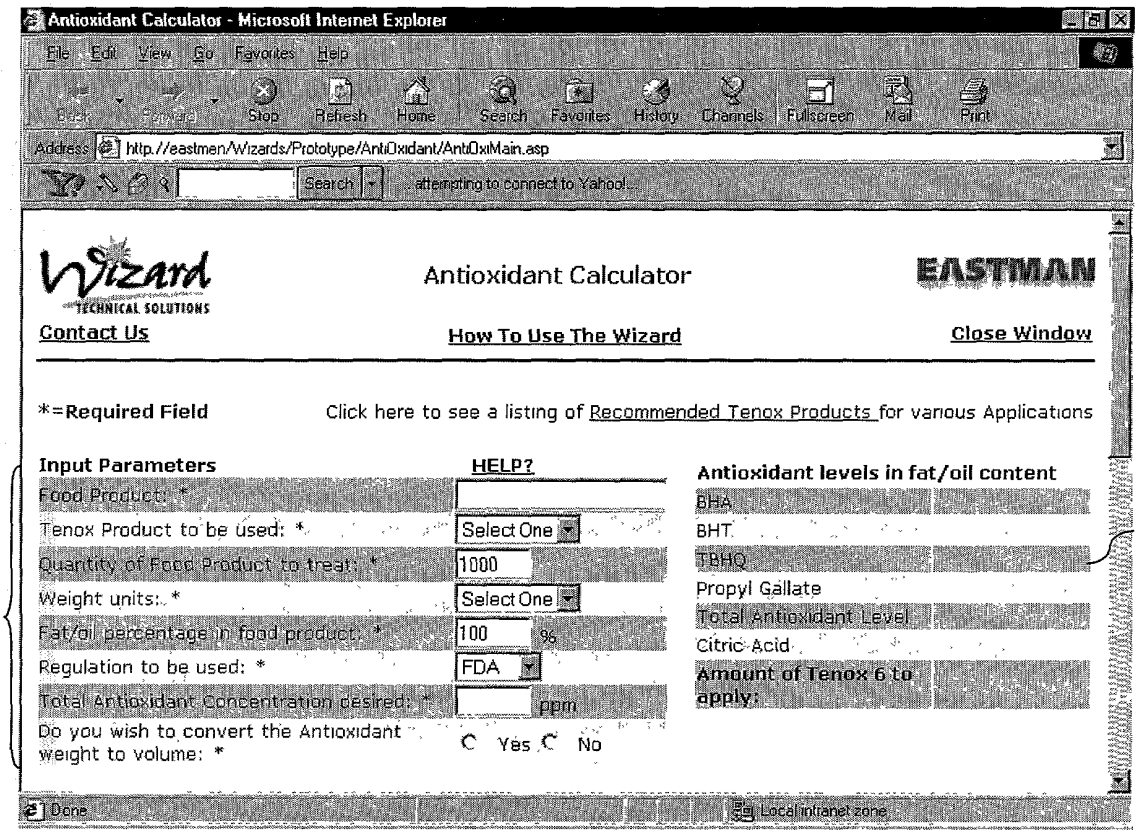

Antioxidant Calculator - Microsoft Internet Explorer
File Edit View Go Favorites Help
Back Forward Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print
Address http://eastmen/Wizards/Prototype/AntiOxidant/AntiOxiMain.asp
Search attempting to connect to Yahoo!
Wizard TECHNICAL SOLUTIONS
Antioxidant Calculator
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required Field
Click here to see a listing of Recommended Tenox Products for various Applications
Input Parameters
HELP?
Food Product: *
Tenox Product to be used: *
Select One
Quantity of Food Product to treat: *
1000
Weight units:. *
Select One
Fat/oil percentage in food product: *
100
%
Regulation to be used: *
FDA
Total Antioxidant Concentration desired: *
ppm
Do you wish to convert the Antioxidant weight to volume: *
Yes No
Antioxidant levels in fat/oil content
BHA
BHT
TBHQ
Propyl Gallate
Total Antioxidant Level
Citric Acid
Amount of Tenox 6 to apply:
Done
Local intranet zone
1450
1452

FIG. 14C

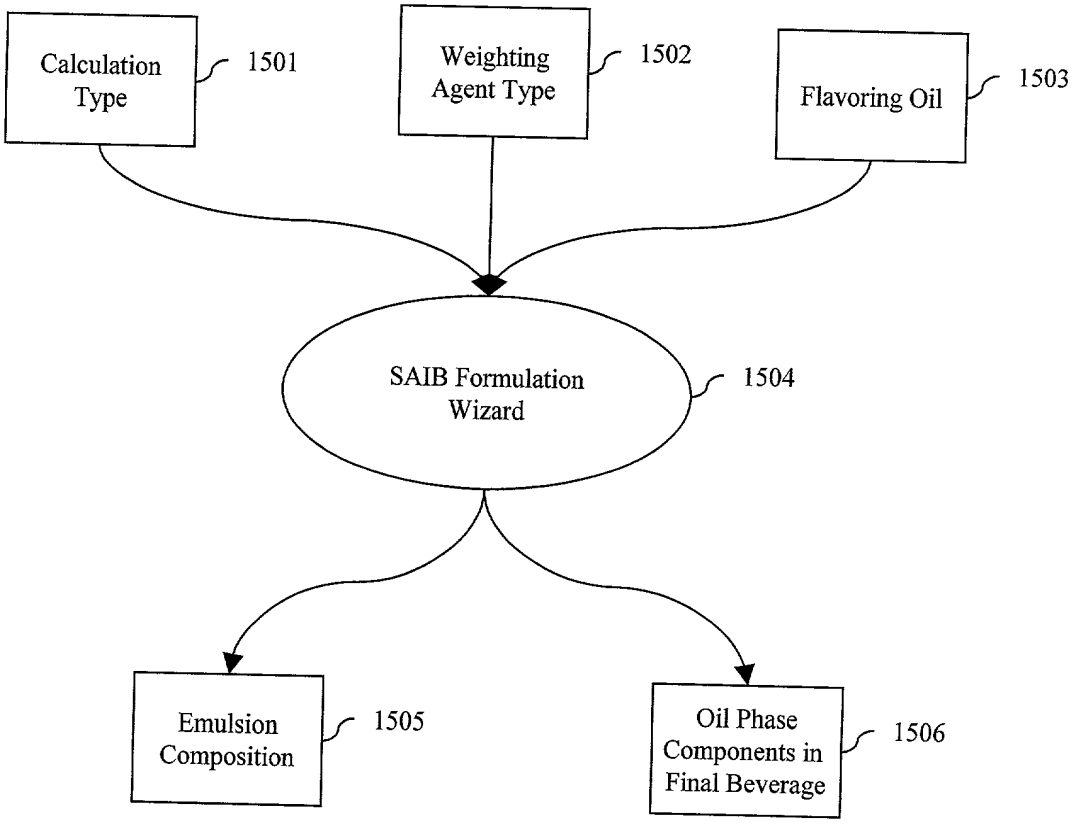

Calculation Type
1501
Weighting Agent Type
1502
Flavoring Oil
1503
SAIB Formulation Wizard
1504
Emulsion Composition
1505
Oil Phase Components in Final Beverage
1506

FIG. 15A

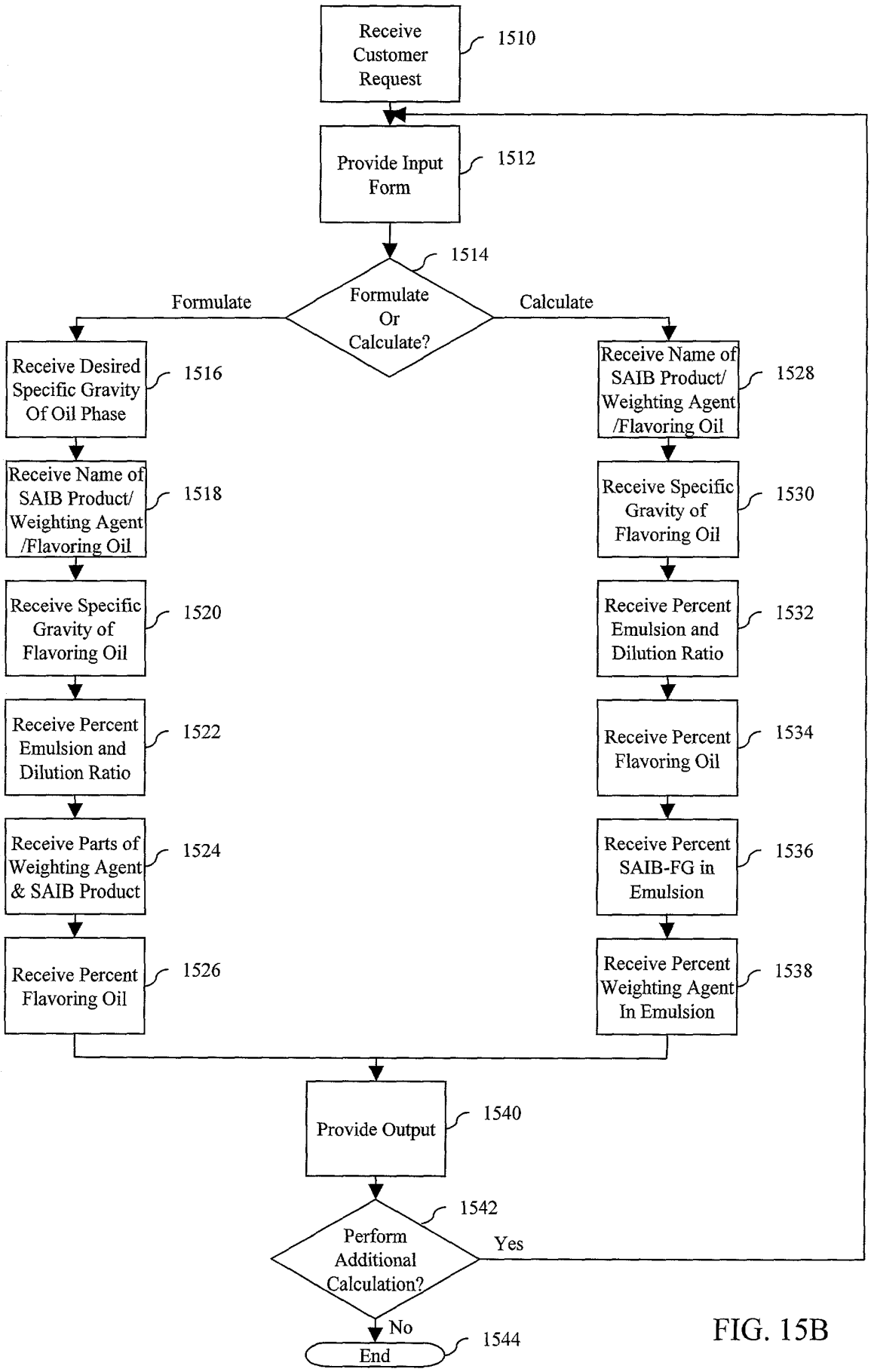

Receive Customer Request
1510
Provide Input Form
1512
1514
Formulate Or Calculate?
Formulate
Calculate
Receive Desired Specific Gravity Of Oil Phase
1516
Receive Name of SAIB Product/ Weighting Agent /Flavoring Oil
1518
Receive Specific Gravity of Flavoring Oil
1520
Receive Percent Emulsion and Dilution Ratio
1522
Receive Parts of Weighting Agent & SAIB Product
1524
Receive Percent Flavoring Oil
1526
Receive Name of SAIB Product/ Weighting Agent /Flavoring Oil
1528
Receive Specific Gravity of Flavoring Oil
1530
Receive Percent Emulsion and Dilution Ratio
1532
Receive Percent Flavoring Oil
1534
Receive Percent SAIB-FG in Emulsion
1536
Receive Percent Weighting Agent In Emulsion
1538
Provide Output
1540
1542
Perform Additional Calculation?
Yes
No
End
1544

FIG. 15B

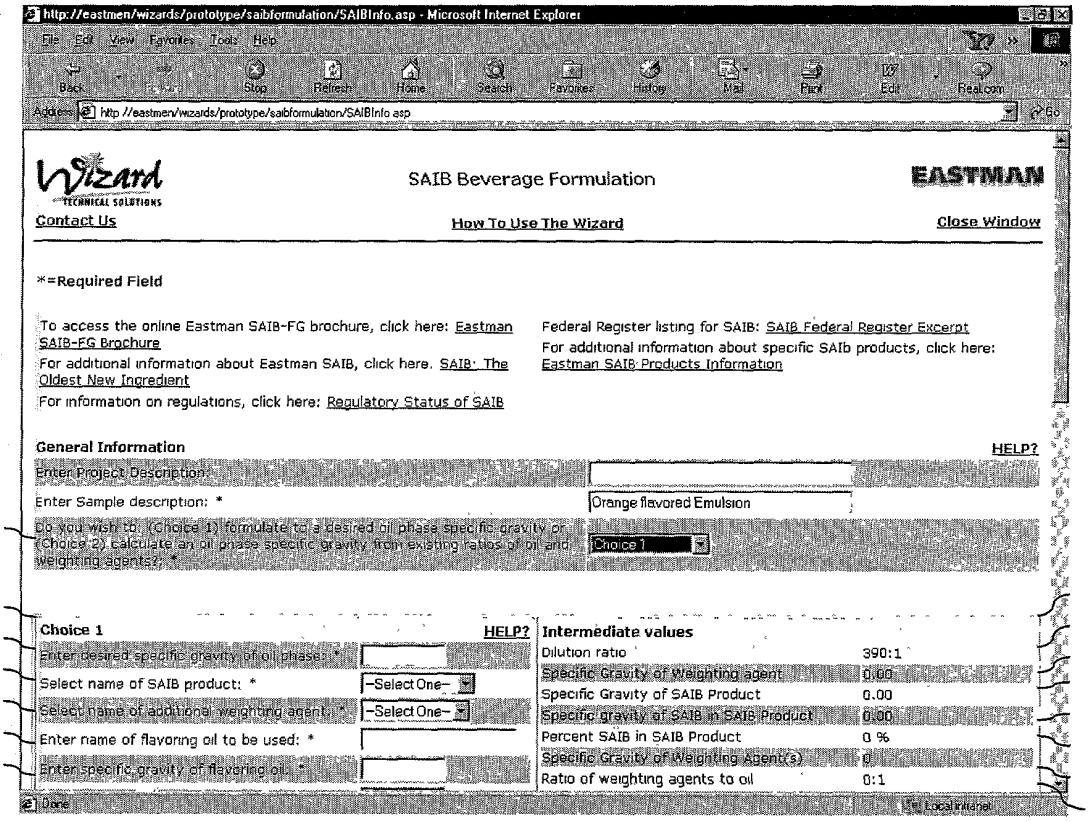

http://eastmen/wizards/prototype/saibformulation/SAIBInfo.asp - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Stop Refresh Home Search Favorites History Mail Print Edit RealCom
Address http://eastmen/wizards/prototype/saibformulation/SAIBInfo.asp
Wizard TECHNICAL SOLUTIONS
SAIB Beverage Formulation
EASTMAN
Contact Us
How To Use The Wizard
Close Window
*=Required Field
To access the online Eastman SAIB-FG brochure, click here: Eastman SAIB-FG Brochure
For additional information about Eastman SAIB, click here. SAIB: The Oldest New Ingredient
For information on regulations, click here: Regulatory Status of SAIB
Federal Register listing for SAIB: SAIB Federal Register Excerpt
For additional information about specific SAIb products, click here: Eastman SAIB Products Information
General Information
HELP?
Enter Project Description:
Enter Sample description: *
Orange flavored Emulsion
Do you wish to: (Choice 1) formulate to a desired oil phase specific gravity or (Choice 2) calculate an oil phase specific gravity from existing ratios of oil and weighting agents? *
Choice 1
1550
1552
Choice 1
HELP?
1553
Enter desired specific gravity of oil phase: *
1554
Select name of SAIB product: *
-Select One-
1555
Select name of additional weighting agent: *
-Select One-
1556
Enter name of flavoring oil to be used: *
1557
Enter specific gravity of flavoring oil: *
Intermediate values
1558
Dilution ratio
390:1
1559
Specific Gravity of Weighting agent
0.00
1560
Specific Gravity of SAIB Product
0.00
1561
Specific gravity of SAIB in SAIB Product
0.00
1562
Percent SAIB in SAIB Product
0 %
1563
Specific Gravity of Weighting Agent(s)
0
1564
Ratio of weighting agents to oil
0:1
1565
Done
Local intranet

FIG. 15C

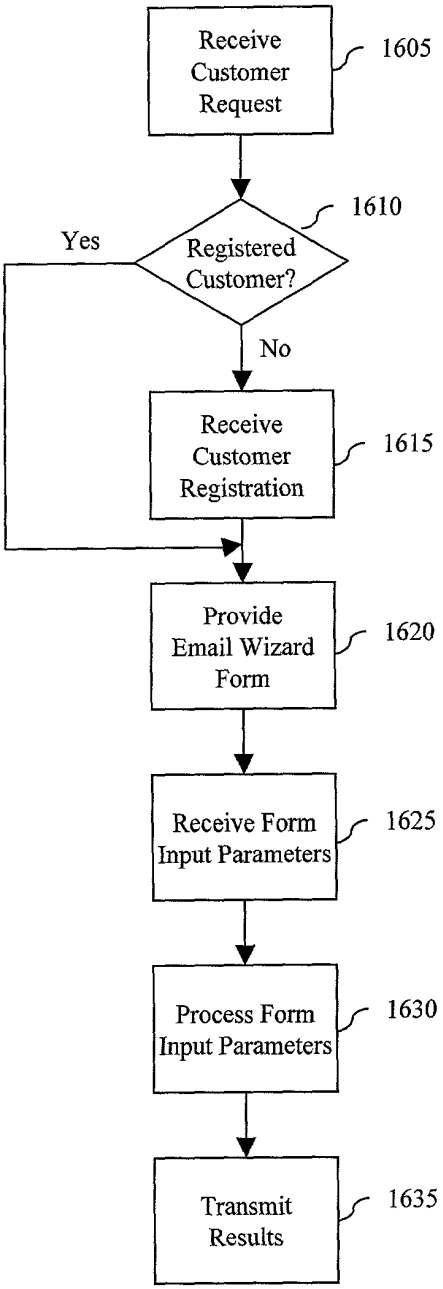

Receive Customer Request
1605
1610
Registered Customer?
Yes
No
Receive Customer Registration
1615
Provide Email Wizard Form
1620
Receive Form Input Parameters
1625
Process Form Input Parameters
1630
Transmit Results
1635

FIG. 16

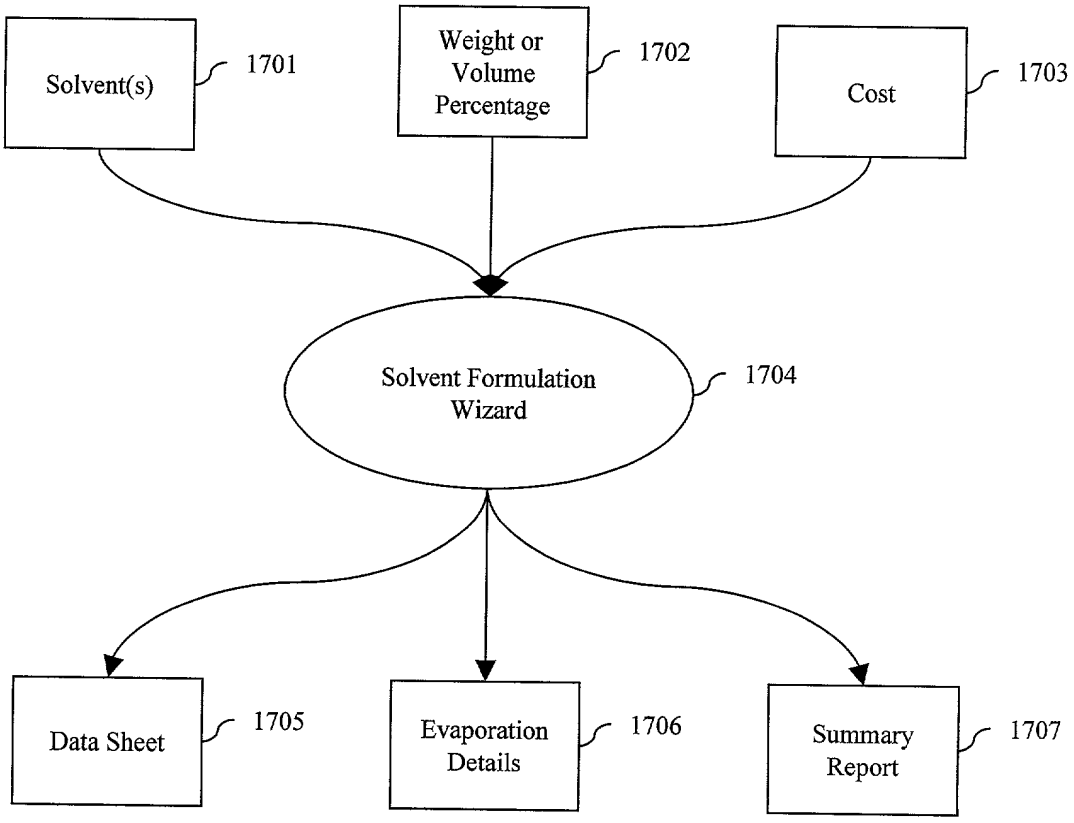

Solvent(s)
1701
Weight or Volume Percentage
1702
Cost
1703
Solvent Formulation Wizard
1704
Data Sheet
1705
Evaporation Details
1706
Summary Report
1707

FIG. 17A

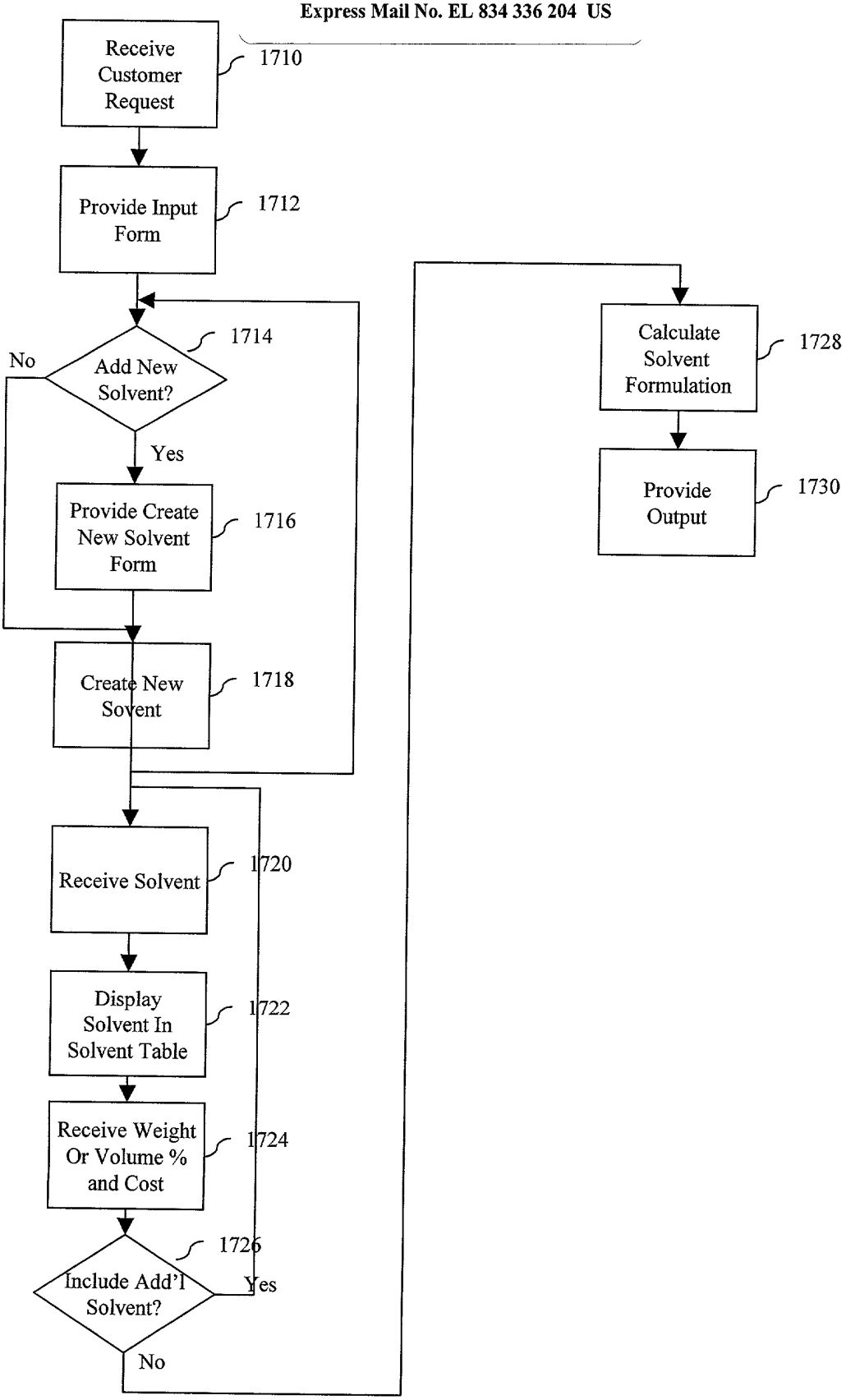

Receive Customer Request
1710
Provide Input Form
1712
Add New Solvent?
1714
No
Yes
Provide Create New Solvent Form
1716
Create New Solvent
1718
Receive Solvent
1720
Display Solvent In Solvent Table
1722
Receive Weight Or Volume % and Cost
1724
Include Add'l Solvent?
1726
Yes
No
Calculate Solvent Formulation
1728
Provide Output
1730

FIG. 17B

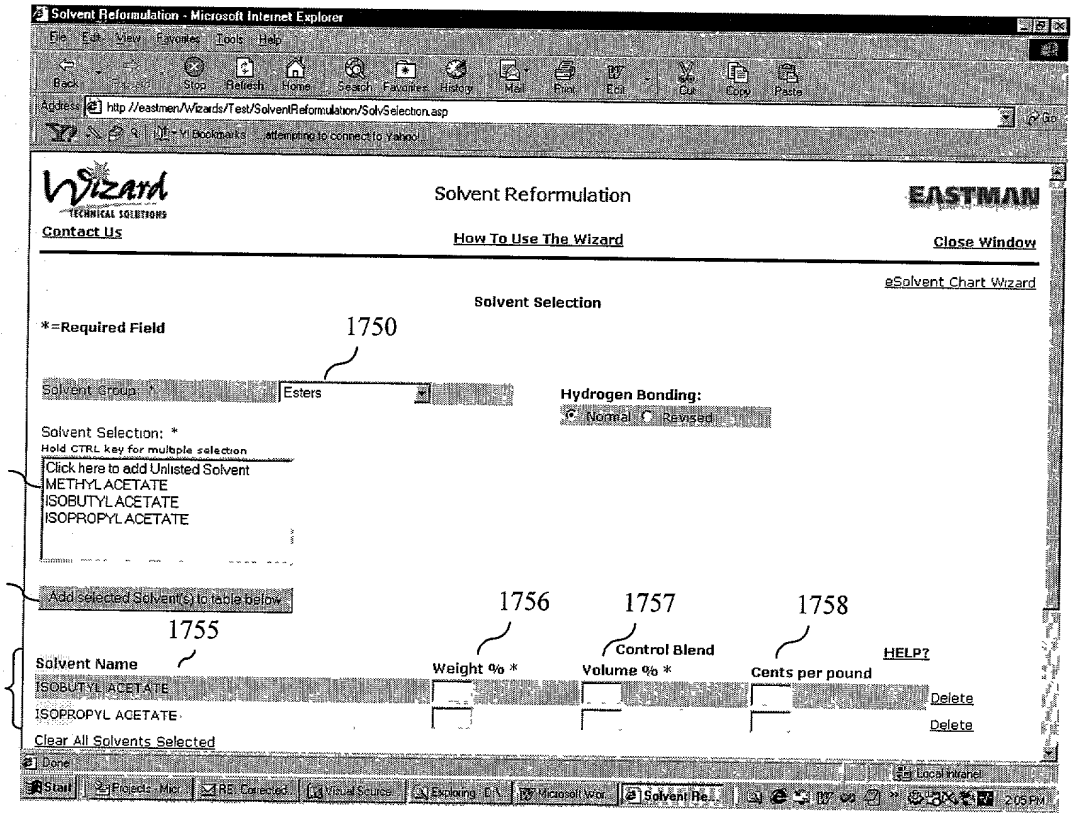


FIG. 17C

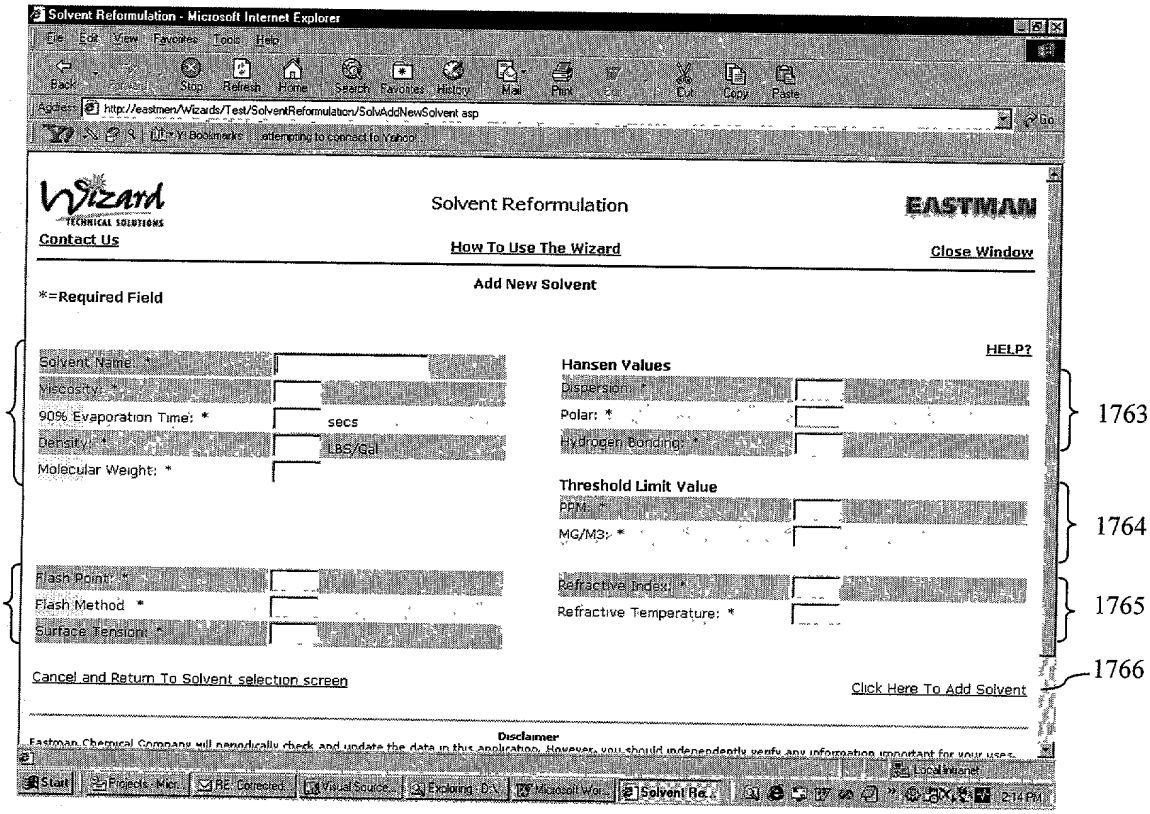


FIG. 17D

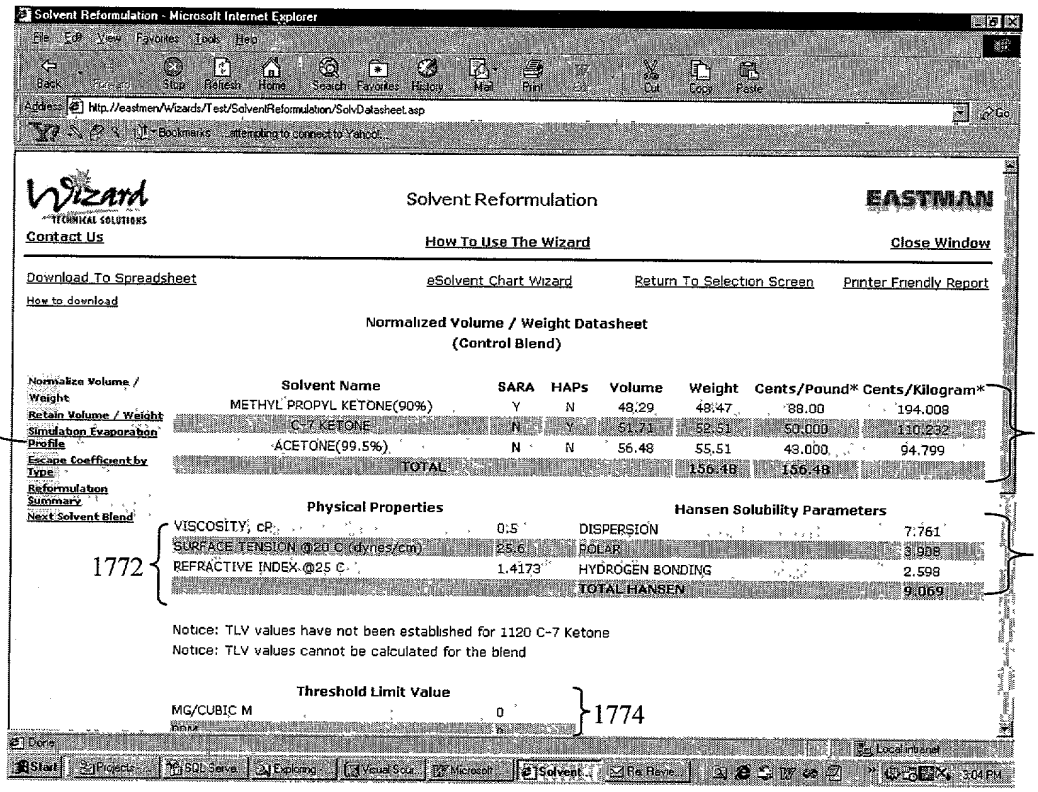


FIG. 17E

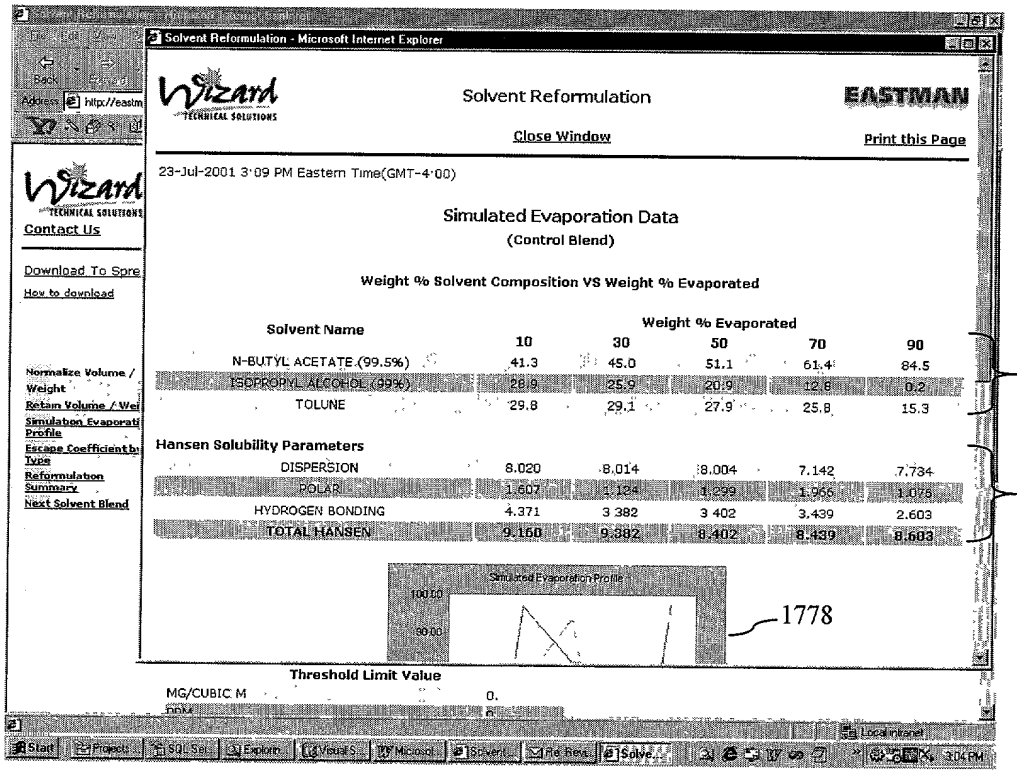


FIG. 17F

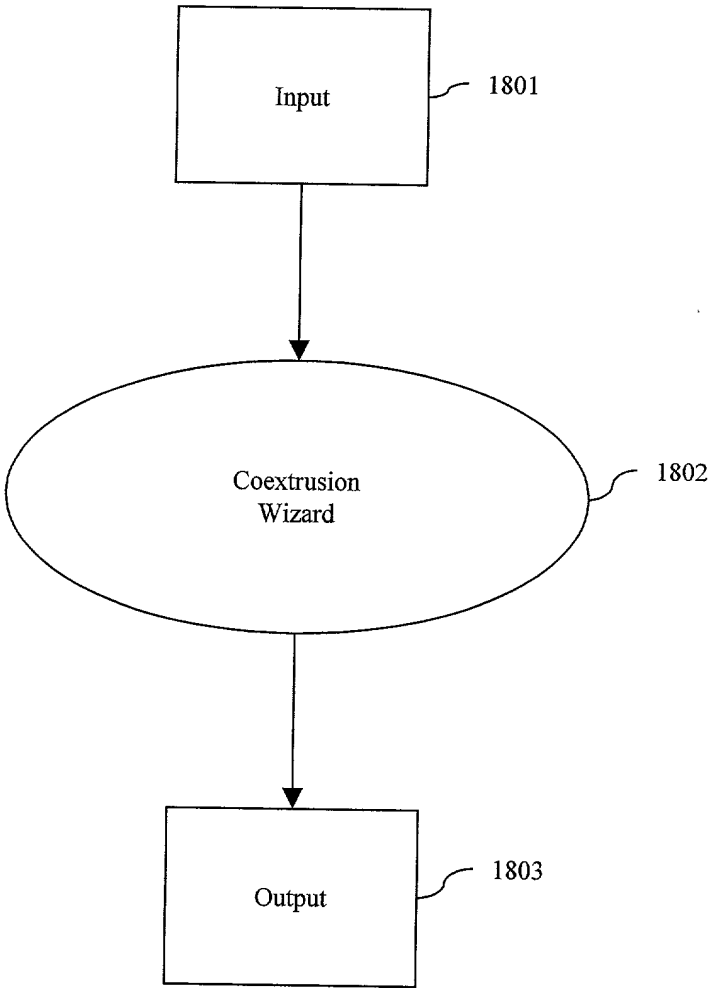


FIG. 18

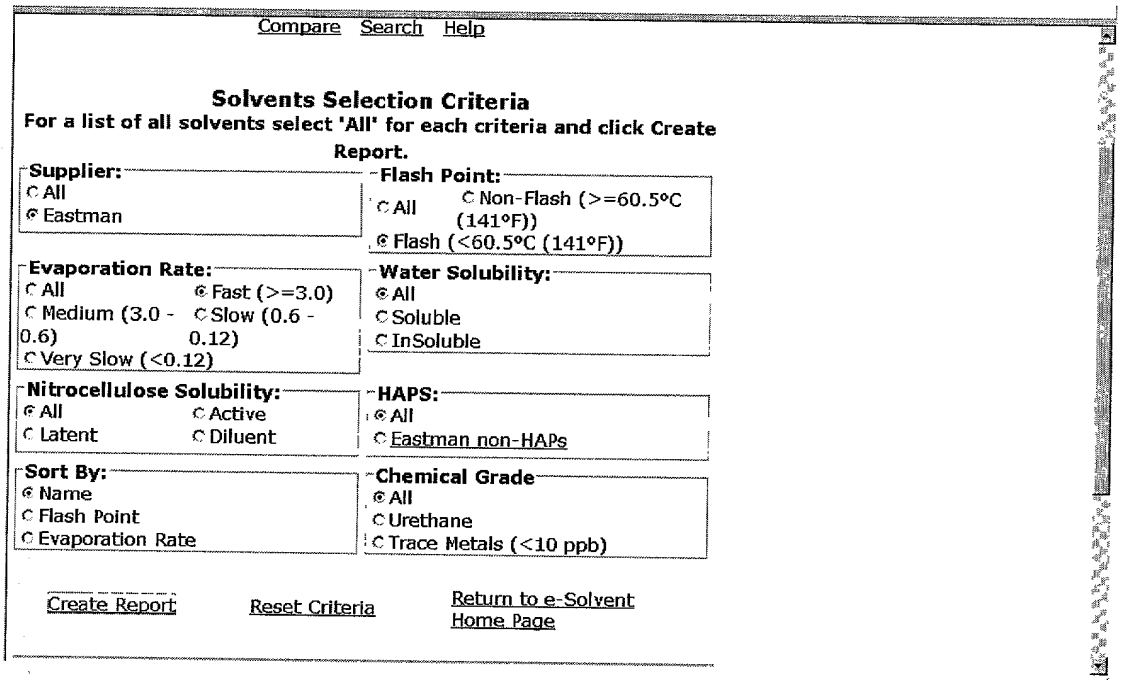

Compare Search Help
Solvents Selection Criteria
For a list of all solvents select 'All' for each criteria and click Create Report.
Supplier:
All
Eastman
Flash Point:
All
Non-Flash (>=60.5°C (141°F))
Flash (<60.5°C (141°F))
Evaporation Rate:
All
Fast (>=3.0)
Medium (3.0 - 0.6)
Slow (0.6 - 0.12)
Very Slow (<0.12)
Water Solubility:
All
Soluble
InSoluble
Nitrocellulose Solubility:
All
Active
Latent
Diluent
HAPS:
All
Eastman non-HAPs
Sort By:
Name
Flash Point
Evaporation Rate
Chemical Grade
All
Urethane
Trace Metals (<10 ppb)
Create Report
Reset Criteria
Return to e-Solvent Home Page

FIG. 19A

Sort By:
◉ Name ○ Flash Point
○ Evaporation Rate

Solvents Report

Selection Criteria: Sorted By Name, Supplier = Eastman, Flash Point = Flash (<60.5°C (141° F)), Evap Rate = Fast (>=3.0), Water = All, Nitrocelluose = All, HAPS = All, Chemcial Grade = All

Solvent	Eastman Product?	Evaporation Rate, nBuOAc = 1	Flash Point
EASTMAN Acetone, High Purity Sales Grade	Yes	6.3	-20°C (-4°F)
EASTAPURE Ethyl Acetate	Yes	4.1	-4°C (24°F)
EASTMAN Ethyl Acetate,85-88%	Yes	4.2	-3°C (27°F)
EASTMAN Ethyl Acetate, Urethane Grade	Yes	4.1	-4°C (24°F)
EASTMAN Isopropyl Acetate	Yes	3	2°C (35°F)
EASTMAN Methyl Acetate	Yes	6.0	-13°C (9°F)
EASTMAN Methyl Acetate	Yes	6.0	-15°C (9°F)
EASTMAN Methyl Acetate	Yes	6.0	-13°C (5°F)
EASTMAN Methyl Acetate	Yes	6.0	-15°C (5°F)

Return to Selection Page Printer Friendly Report

FIG. 19B

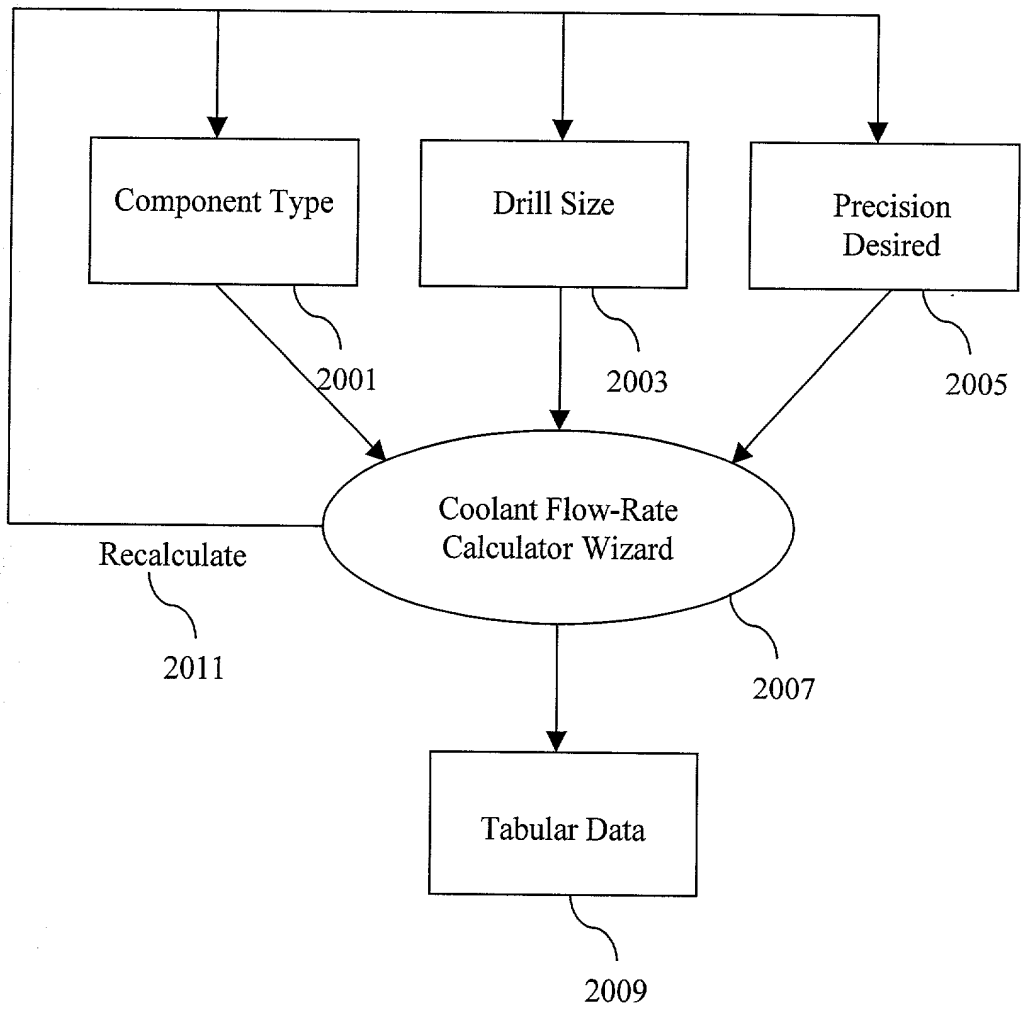


FIGURE 20A

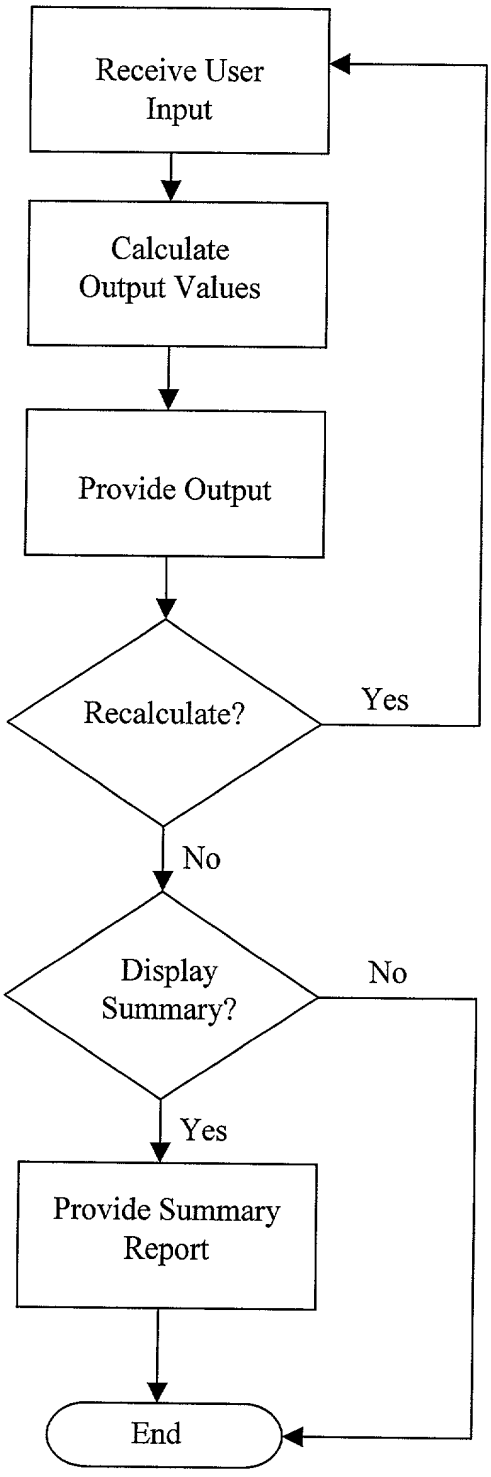
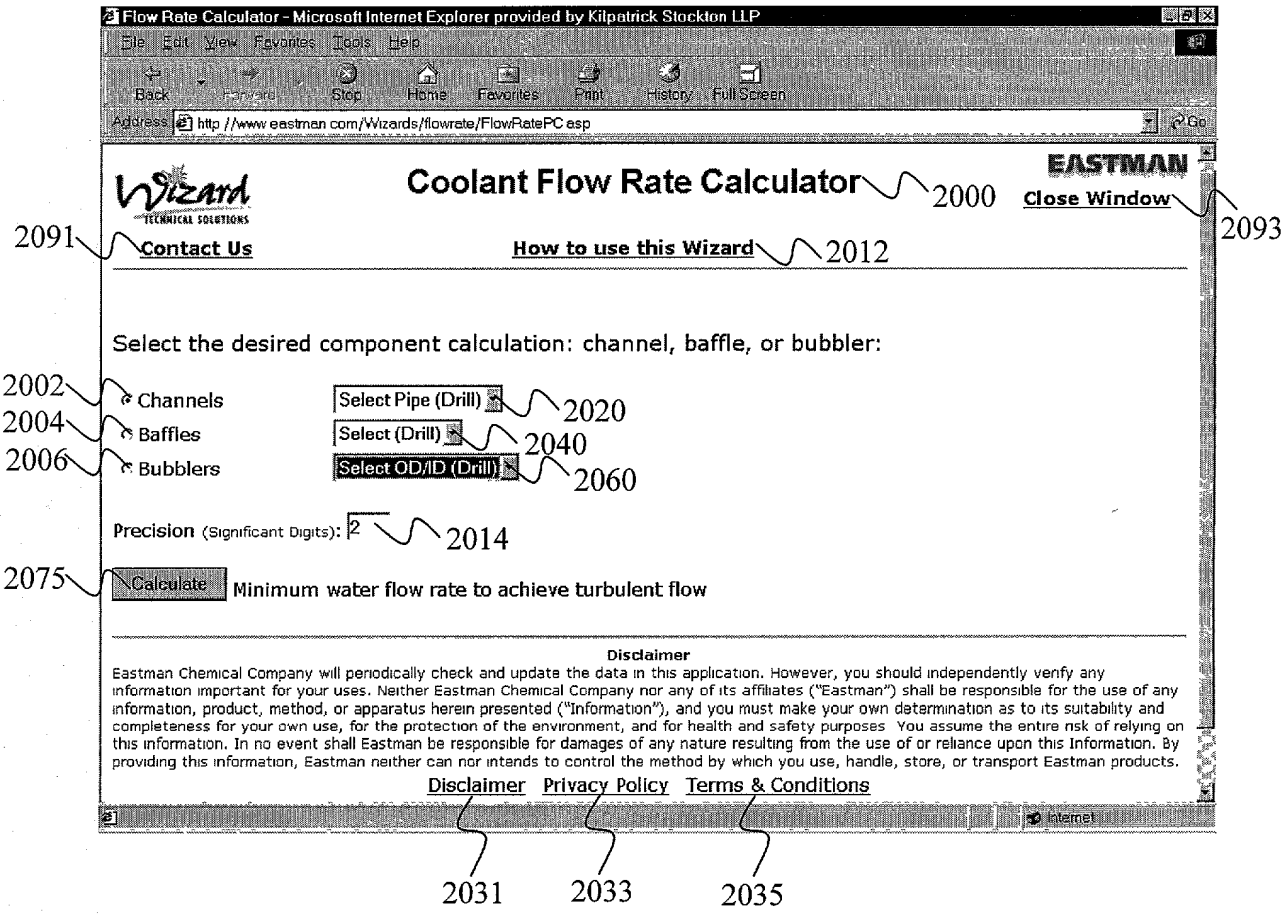

Receive User Input
Calculate Output Values
Provide Output
Recalculate?
Yes
No
Display Summary?
No
Yes
Provide Summary Report
End

FIGURE 20B


Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp
Coolant Flow Rate Calculator
2000
EASTMAN
Close Window
2093
2091
Contact Us
How to use this Wizard
2012
Select the desired component calculation: channel, baffle, or bubbler:
2002
Channels
Select Pipe (Drill)
2020
2004
Baffles
Select (Drill)
2040
2006
Bubblers
Select OD/ID (Drill)
2060
Precision (Significant Digits): 2
2014
2075
Calculate
Minimum water flow rate to achieve turbulent flow
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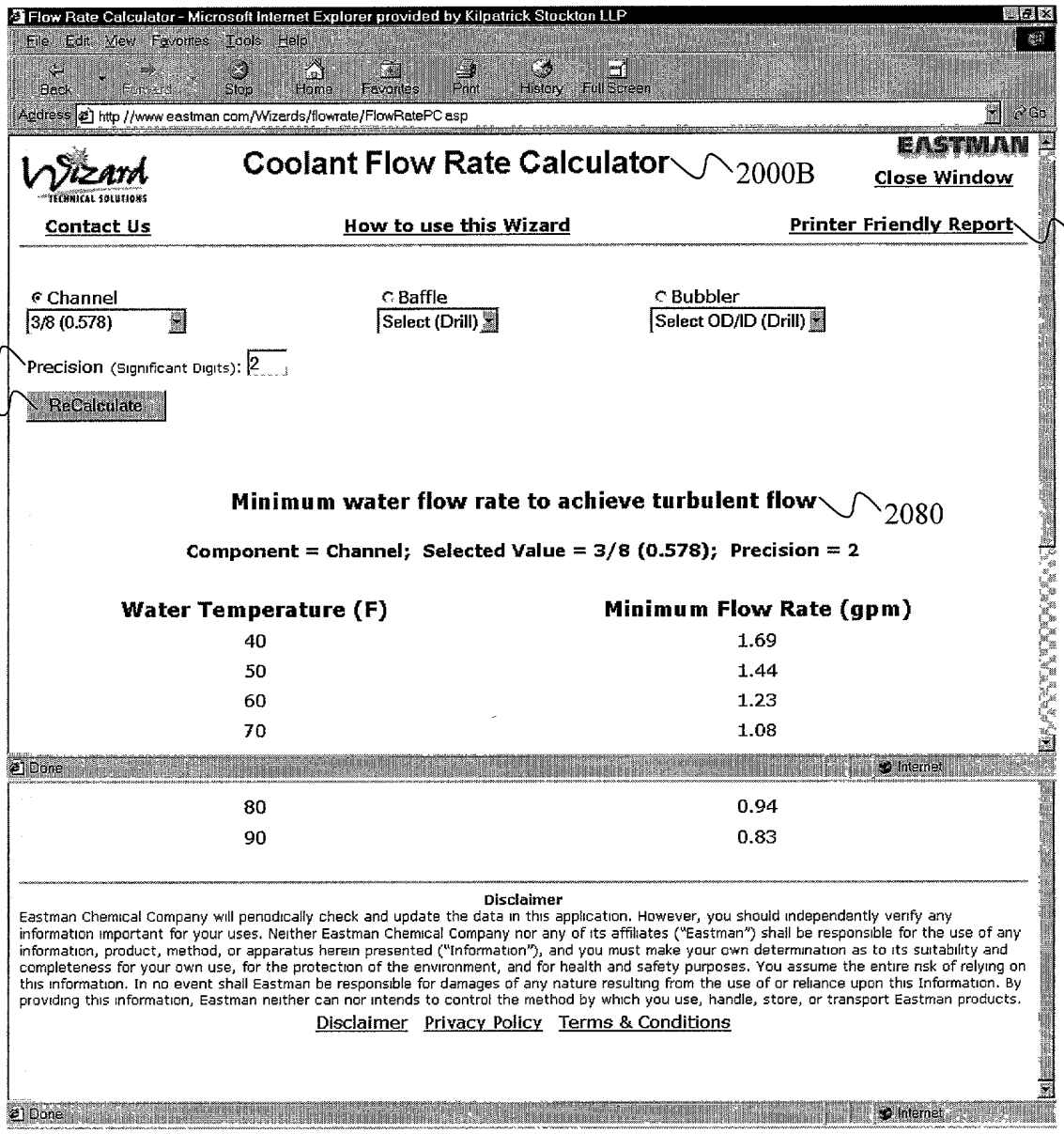
Disclaimer
Privacy Policy
Terms & Conditions
2031
2033
2035

FIGURE 20C


Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
File Edit View Favorites Tools Help
Back Forward Stop Home Favorites Print History Full Screen
Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp
Coolant Flow Rate Calculator
2000B
EASTMAN
Close Window
Contact Us
How to use this Wizard
Printer Friendly Report
2099
Channel
3/8 (0.578)
Baffle
Select (Drill)
Bubbler
Select OD/ID (Drill)
2014
Precision (Significant Digits): 2
2075B
ReCalculate
Minimum water flow rate to achieve turbulent flow
2080
Component = Channel; Selected Value = 3/8 (0.578); Precision = 2
Water Temperature (F)
Minimum Flow Rate (gpm)
40 1.69
50 1.44
60 1.23
70 1.08
Done
Internet
80 0.94
90 0.83
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Disclaimer Privacy Policy Terms & Conditions
Done
Internet

FIGURE 20D

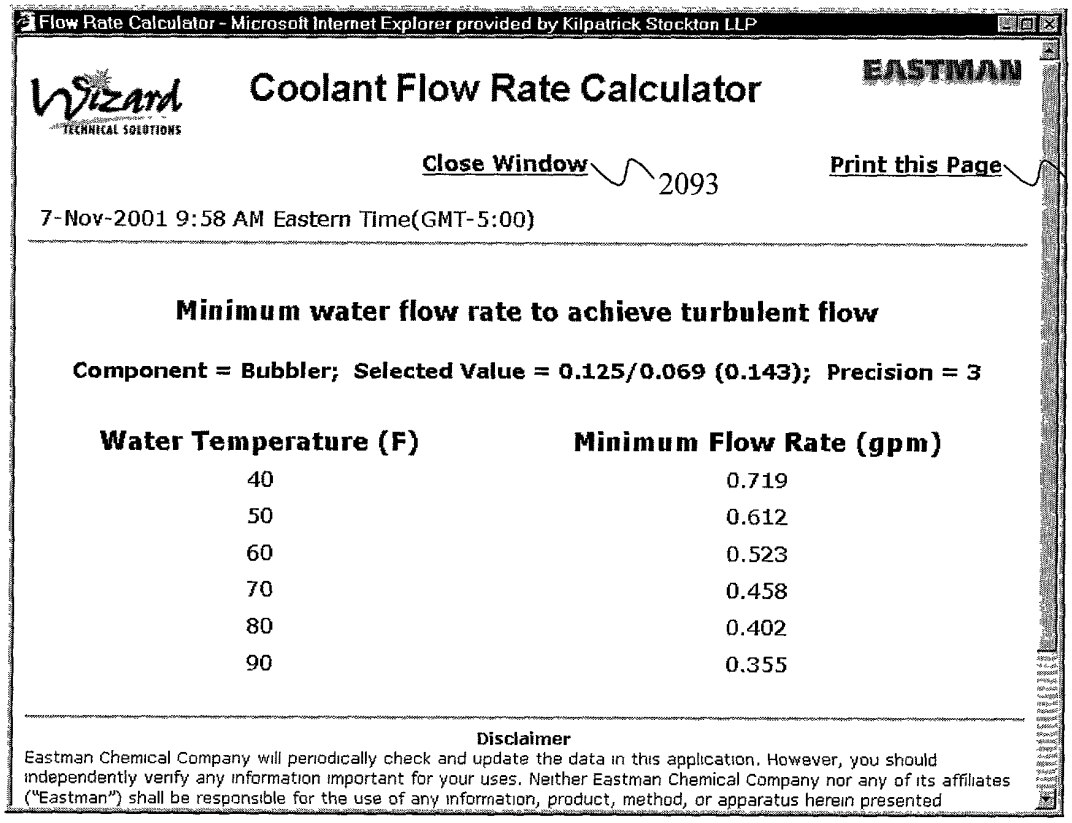
Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP
Wizard
TECHNICAL SOLUTIONS
Coolant Flow Rate Calculator
EASTMAN
Close Window
2093
Print this Page
2041
7-Nov-2001 9:58 AM Eastern Time(GMT-5:00)
Minimum water flow rate to achieve turbulent flow
Component = Bubbler; Selected Value = 0.125/0.069 (0.143); Precision = 3
Water Temperature (F)
Minimum Flow Rate (gpm)
40 0.719
50 0.612
60 0.523
70 0.458
80 0.402
90 0.355
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FIGURE 20E